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REPORT ON POLICY AND LEGISLATIVE FRAMEWORK

Feasibility Study on Pasture Use Fee



CENTRE FOR POLICY RESEARCH

2nd floor, Inter-office building, Prime Minister
Amar street 4, Sukhbaatar district 8, Ulaanbaatar
14200,

Phone: (+976) 70117044

Fax: (+976) 70119419, e-mail: cpr@cpr.mn

Web: www.cpr.mn

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Introduction

The 1997 Law on Land User Payment was the first step in introducing the land use payment system in Mongolia. To enforce the law, the Government has issued the resolution #152 “Measures to enforce the Law on Land Use Payment” in 1997, which split the country into 4 regions in terms of land valuation: Khangai-Khentii mountainous, Altai Mountain, Gobi mountainous and Steppe, and established base values of land and land use payments. To implement the Land Payment Law, the Government Resolution No 152 was issued in 1997, which has set minimum payments for the use of pastures as a percentage from the base values of pastures as follows (MNT):

- Khangai-Khentii mountainous- 767.5
- Altai Mountain- 466.7
- Gobi- 458.9
- Steppe- 572.6

The resolution has divided 4 regions further into 22 land evaluation sub-regions with minimum payments for the use of pastures.

In 2017, the Agency for Land Relations, Geodesy and Cartography (ALRGC) has updated the base value as well as land use payments for pastures and increased land evaluation sub-regions from 22 to 31. The base value of pastureland was estimated using a survey carried out in 2014 in one soum only, Mandal soum of the Selenge aimag, which can hardly represent the extensive livestock herding in Mongolia- the most common type of pastureland use. In addition, the survey used cash income of herders which cannot express the pastureland potential and not acceptable for land evaluation purposes. The updated proposal was rejected by the Ministry of Food, Agriculture and Light Industry as not being sufficient to consider the current conditions and policy priorities of the ministry in the area of pastureland use and livestock development.

The Law on Land Use Payment, the Government resolution #152 and the latest attempts by ALRGC are focused on estimating monetary values of the pastures based on land productivity and collecting land use payments from soums as a budget revenue without much considerations of using land use payments as a tool or incentive mechanism to encourage sustainable use resources at micro or land users level within a soum. Particularly, they have the following shortcomings:

1. Fail to consider the degree of overgrazing by pastureland users, thus cannot serve as mechanism to prevent this serious misbehavior by users
2. Fail to differentiate between good and bad pastureland users within land evaluation sub-regions which flat fees are imposed on
3. Fail to make sure that grazing fee revenues are used back as an incentive mechanism to address the key problem in the pastureland management area-the herders’ livestock number maximization behavior

Therefore, the current methodology was developed to meet the existing demand for introducing grazing fees as a mechanism to promote sustainable use of pastureland as well as local biodiversity protection in general and to address the shortcomings of the previous efforts in particular. The new methodology was proposed as:

1. Incentive to reconcile animal numbers with pasture carrying capacity
2. Incentive to increase animal sales by improving its quality
3. Mechanism to form an independent funding source to plan & implement pastureland, livestock risk and environmental management in herders' participation
4. Based on the tested best practices and lessons learnt in relation to the feasibility of a grazing fee system and herders willingness to pay

The proposed methodology incentivizes herders towards reconciling animal numbers with pasture carrying capacity through 2 mechanisms:

1. Overgrazing rate is considered in estimating grazing fees, the higher the overgrazing rate the higher fee rate and vice versa
2. Making the commitment of herders to reconcile animal numbers with pasture carrying capacities as a condition for them to access funds established from grazing fee revenues (see details in section 3.2)

An incentive to increase animal sales by improving its quality is promoted through using a portion grazing fee revenues as quality premium for each animal meeting quality standards and sold for meat (see details in section 3.2)

Proposed soum disposal fund and livestock risk management fund will serve as a mechanism to form an independent funding source to plan & implement pastureland, livestock risk and environmental management through receiving and financing proposals from herders.

The proposed methodology is based on findings and lessons learnt from pilots and best practices mostly undertaken and identified by the Center for Policy Research since 2011. They include:

Pilot of a proxy grazing fee system and livestock risk management fund

- Munkhkhairkhan soum of Khovd aimag under the WWF project in 2017
- 8 demo soums of 8 aimags under the SDC's Green Gold project in 2015
- 4 soums of Mongolia (Mankhan soum of Khovd aimag representing the high mountain region, Undur-Ulaan soum of Arkhangai aimag for the forest-steppe region, Tumentsogt soum of Sukhbaatar aimag for the steppe region, and Khuvsgul soum of Dornogobi aimag for the Gobi region) under the World Bank's Sustainable Livelihoods Project, SLP –II in 2011

Pastureland use agreements

- 2 herder groups in the Munkhkhairkhan soum of Khovd aimag under the WWF assignment 'Leopard-friendly pastureland management' in 2017
- 16 herder groups of 8 demo soums of 8 aimags under the SDC's Green Gold project in 2015
- 13 herders partnerships in 3 soums of Dornod and Khentii aimags under the UNDP assignment "Developing the management structure of Tumen Khan-Shalz local protected area" in 2014-2015, Mongolia's network of managed resource protected areas project
- 384 herder groups of 42 soums from 5 aimags under the Millennium Challenge Corporation's Peri-Urban Rangeland Project in 2009-2013

One of the important considerations in developing grazing fee system is the issue of pasture carrying capacity. At present official estimates of the pasture carrying capacities nationwide are carried out by

two major institutions the National Agency of Meteorological and Environmental Monitoring (NAMEM) under the Ministry of Environment and Tourism Development and the Agency for Land Relations, Geodesy and Cartography under the Ministry of Construction and Urban Development. The NAMEM estimates carrying capacities for the winter-spring pastures using grass yield samples of around 1500 points (one point per bagh) taken in every August annually. However, only 5 points for grass yield samples is hardly representative of the entire soum territory which averages around 300,000 ha of land mass and covers a wide variety of ecological conditions. Although NAMEM estimates give a kind of approximation for judging the pasture carrying at the soum level, they are not sufficient for estimating it at the level pastureland users or herders.

The Agency for Land Relations, Geodesy and Cartography (ALRGC) uses 1:100,000 scale land use and vegetation maps in estimating pasture carrying capacities. The vegetation maps contain the most detailed information on vegetation composition, grass yields and feed protein content for each vegetation type that averages around 3-5 per soum. As the pasture carrying capacities are shown as a part of the 1:100,000 vegetation maps they provide more representative data of pasture carrying capacities for every corner of the soum territory and as such can be a basis for decision making at the level of pastureland users-herders. 1:100,000 vegetation maps have been properly prepared for the first time under socialism and had to be updated every 5 years. However, since 1990s because funding shortages updates of these maps have been carried out with less quality control, resulting in the accuracy of grass yield and vegetation composition boundaries being eroded to some degree. The last time these maps were updated in 2010.

The key difference between NAMEM and ALRGC methodologies was a way to cut vegetation samples. NAMEM methodology cut samples at 1 cm from the surface while ALRGC methodology cut them at 3 cm from the surface¹. However, ALRGC methodology has been updated since 2016 under the photo-monitoring method promoted jointly with the SDC's Green Gold project according to which they vegetation samples are being cut at the 1 cm from the surface the same as NAMEM methodology. Thus, two key national institutions use now the same methodology to estimate grass yield. The rationale for cutting samples at 1 cm height is that animals graze grasses at similar height.

The grass yield is multiplied by pasture areas to estimate the total forage supply and this supply is compared to the animals' demand for pasture forages to estimate carrying capacities. The animals' demand for pasture forages is estimated by multiplying the number of sheep units by the forage demand for one sheep unit. The forage demand for one sheep unit per year is 470 kg in the regions of Gobi and Depression of Great Lakes, 560 kg in the High Mountain region, 600 kg in the Forest steppe region and 620 kg in the Steppe region. The coefficients to convert animal species into sheep units are 5.7 for camel, 6.6 for horse, 6 for local cattle, 0.9 for goat, 1 for local sheep, 8 for pure and cross breeds of cattle and 1.2 for pure and cross breeds of sheep. The forage demand for sheep unit and coefficients to convert into sheep units were developed in late 1980s by research institutions of Mongolia and used for livestock sector and food supply programs². Since then the substance of these guidelines has not changed with some minor modifications occurring such as rounding some figures into whole

¹ Section 2.2.5 Estimating pasture grass yield, "Temporary rules for undertaking field estimates of the state and quality of land", approved by the Head of ALRGC, Order No A/174 dated 28 June 2013

² Norms and standards used for developing National Food Programme, Ulaanbaatar, 1981, Ministry of Agriculture

numbers like using 6 for camel instead of 5.7. Another issue under debate is the percentage of converting biomass into animal intakes. Although the international best practices suggest 50% intake, in Mongolian conditions where overgrazing is severe with animal pressures exceed carrying capacities 2-5 folds in some aimags and soums, the application of 50% intake can be promoted only as a mid-term goal.

The proposed methodology uses grass yield data from NAMEM, the initial coefficients to convert into sheep units (5.7 for camel, 6.6 for horse, 6 for cattle, 0.9 for goat, 1 for sheep) and 100% of biomass to be used by animals as short-term objective and 50-80% intake as mid-term objective. In addition, the methodology recommends that pasture carrying capacity be estimated for each pastureland user who will sign the land use agreement with soum Governor. The smallest pastureland user is *khot ail* (2-5 households camping together averaging 100-200 *khot ails* in one soum), therefore, the number of vegetation samples has to be drastically increased in one soum in order to estimate pasture carrying capacities at this low levels. The consultation meeting organized at the Ministry of Food, Agriculture and Light Industry (MOFALI) on 22 January 2018 involving all relevant stakeholders including MOFALI, NAMEM, ALRGC, Research Institute of Animal Husbandry (RIAH), University of Life Sciences, and others discussed and supported the proposed methodology and agreed to make joint efforts to review the existing methodologies for estimating pasture carrying capacities to come up with a unified version.

Finally livestock income per an average herder household was estimated by ecological regions using the following indicators:

- Average herd size per herder household as the total number of animal species in the region at the end 2016 from the NSO data inclusive of animals owned by absentee herders divided by the total number of herders households (the inclusion of animals owned by absentee herders as a part of herder household animals is dictated by the need to account for total income produced on any pastures regardless of ownership):

	Camel	Horse	Cattle	Sheep	Goat	Total	Sheep units
High Mountain	0.34	15.88	28.63	152.4 9	112.67	310.01	620
Forest Steppe	0.11	25.07	35.86	162.9 3	110.39	334.36	728
Steppe	0.89	35.35	26.44	232.9 6	171.27	466.90	966
Gobi	10.73	16.19	8.50	140.1 5	233.66	409.23	804
Depression of Great Lakes	3.23	16.75	18.80	179.0 0	228.16	445.94	853

Source: Estimated using data from Statistical Yearbook, National Statistics Office, 2016

- The national average indicators for animal productivity. Although these indicators may slightly vary across regions, there is no region-specific reliable data available. In addition, it is assumed that regional differences in these variables are minor and will not lead to differences in herders incomes:

Output per animal

	Wool, kg	Milk, liter	Meat, carcass weight, kg
Camel	5	220	200
Horse			135
Cattle		240	130
Sheep	1.1		18
Goat	0.29		15

Source: CPR developed model for herd turn over, 2017

- The latest national average of livestock and livestock product prices, '000 MNT

	Wool, kg	Milk, liter	Hide/skin, piece	Meat, carcass weight, kg
Camel	2.64	2	15.7	2.52
Horse			23	2.92
Cattle		1.4	24.5	3.69
Sheep	0.521		0.93	3.21
Goat	48		10.9	2.65

Source: CPR developed model for herd turn over using various sources of price information, 2017

The household income includes income of home consumed products and the value of animal growth in this sense the estimated income is higher than the income reported by herders during socio-economic surveys, which mostly use cash income or income of marketed products. It is worth noting that the cash income does not express the value of all products produced on pastures, therefore not suitable for the land evaluation purposes. For example, in case of 2 herders one with 500 animals and the other one 250 animals and the first herder selling 10% of animals (50 animals) for meat and the second herder 20% of animals (50 animals), In this case the cash income from meat for 2 herders equals, however, the impact of animals on pastures is twice high for the first herder and this serious impact difference is not captured by cash income.

2. Review of laws and regulations related to rangeland management and the collection of natural resources fee

Key laws and regulations related to rangeland management and the collection of natural resources fee include:

1. Constitution
2. Civil Code
3. Land Law
4. Land Payment Law
5. Budget Law
6. Environmental Protection Law
7. Law on natural plants
8. Law on natural resource use fees

Constitution:

Article 5

5. Livestock is national wealth and protected by the state

Article 6

1. The land, its subsoil, forests, water, fauna and flora and other natural resources in Mongolia shall belong exclusively to the people and be under the State protection.

2. The land, except those given to the citizen of Mongolia for private ownership, as well as the subsoil with its mineral wealth, forest, water resources and game shall be the property of the State.

3. The State may give for private ownership plots of land, except pastures and areas under public utilization and special use, only to the citizens of Mongolia. This provision shall not apply to the ownership of the subsoil thereof. Citizens shall be prohibited to transfer the land in their possession to foreign nationals and stateless persons by way of selling, bartering, donating or pledging as well as transferring to others for exploitation without permission from competent State authorities

As stated in the Constitution, the private ownership of pastureland is duly prohibited because of the need to keep mobility for rotational use and reciprocal grazing rights in emergencies.

Civil Code

Article 327 Contracts for lease of agriculture land

327.1. Agriculture land can be leased with or without residential or business facilities on it

327.2. Unless provided otherwise in this chapter, regulations of leasing contracts shall equally apply to lease of agriculture land

Article 481 Unregistered union and partnership

481.1. No registration is needed for unions and partnerships formed by several parties based on a joint action contract, and the participants shall decide their structure and management by mutual agreement

481.2. Unregistered unions and partnerships shall participate in the civil legal relationships through appointed representative or members

The Civil Code article provides a basis for establishing herders' partnerships and in line with establishing environmental management partnerships under the Environmental Protection Law. Moreover, it also makes leasing or contractual use of pastureland as a part of agricultural land possible.

Land Law

6.2. The following [types of] land, regardless of whether they are given into possession or use, shall be used for common purpose under government regulation:

6.2.1. Pasturelands, water points in pasturelands, and salt licks

Naturally formed water sources and saltlicks are regulated as common use land under the draft pastureland protection law which provides the compatibility with the Law on Land. However, making the all the pastureland as common use land makes a lot problems. First of all, this provision ignores the traditional customary rights of herders to the pastureland they use. It contradicts with all three dimensions of sustainable development - economic growth, ecological sustainability and social equality. As the existing common use regime leads to declined livestock productivity and increased losses during emergencies it contradicts with the Constitution's provision on protecting livestock as national wealth.

52.1. ..taking into consideration land use traditions, rational land use, conservation and rehabilitation requirements and specifics of pastureland, shall reflect the general schedule for winter, spring, autumn and summer grazing

Seasonal rotation of pastureland land use is critical in keeping ecological sustainability. However, under the current common use regime herders grow animal numbers to the degree that makes the rotational use no longer possible leading this provision unenforceable. The draft pastureland protection law proposes the way to recover and enforce the rotational use.

52.2 Summer, autumn and *otor* reserve pastures shall be ...used commonly. .. the Sum Governor shall establish schedules for herders to move in and out of winter and spring pastures. Bag Governors and citizens shall be responsible for the implementation of those schedules. .. winter and spring pastures can be used by herder groups under agreements..

In practice, bag *khurals* and Governors make decisions on scheduling of seasonal migrations but they are not followed by herders and not monitored by governors, because herders have no written obligations to follow these decisions. Secondly, bag is administrative unit but not NRM unit. The division of the bag membership is based on winter camping and it is very rare that a bag has four seasonal pastures in 'own territory', usually members of different bags inter-migrate to each other's territory. It makes the bag level decision very difficult to enforce and monitor.

52.7. Citizens of Mongolia may jointly possess land under winter and spring camps by *khot ail* member households.

Currently, this is only type resource that is more or less recognized and certified. The rights however are limited to only land under camp sites but not pastures around them; therefore have no effect on the sustainable use of pastures.

52.8. In cases of the need for movements to territories of other *aimags* or sums due to natural disasters or other emergencies, the relevant level governors shall make a decision to reach an agreement.

The agreement is practiced in cases of emergencies, however, the decisions on timing and quantity of animals do not properly consider the carrying capacities of pastures often leading to hoof *dzud* (animal losses due to forage shortage resulting from in-migrations of too many animals).

52.5 Fenced pastureland can be contracted all year round regardless the season to citizens, economic entities and organizations for the purposes of undertaking intensified livestock husbandry and raising domestic animals

42.1. The relevant state administrative organization in charge of land issues may, following an agreement with the land possessor on withdrawing his/her land with or without replacement, with full or partial compensation, for state special needs, submit such proposal to the Government.

43.6. The compensation shall not apply to citizens, companies and organizations using the land.

The articles specify that only land possessors are entitled for compensations when their land is taken away by the Government. As for pastureland, only land under winter and spring camps are possessed and qualify for seeking compensation but the pastureland as a whole does not qualify for compensations. Because of this serious gap herders are losing their pastureland without any compensation. In addition, the existing common use regime means that there is no land use boundaries identified and recognized which makes the identification of displaced people virtually impossible.

Land Payment Law

8. Exempting land use payment

8.1. The following payment payers shall be exempted from paying land possession/use payment

1/ Herder households from paying for the use of pastures and haymaking areas

The policy may seem favorable for herders at first, but in fact it encourages the misuse of pastures, thus contradicts the long term interest for securing herders' livelihoods by ensuring sustainable livestock sector development. A market economy dictates that user fees for any resource use serve a good economic mechanism to prevent overuse.

Budget Law

58.4. *Soum* is responsible for spending its budget on the following functions:

58.4.4. Fight contagious animal diseases, controlling harmful insects, disaster prevention & recovery, deliver animal health services;

58.4.5. Pastureland management in the *soum* territory;

58.4.6. Environmental protection in the *soum* territory;

60.2. Local development fund is composed of the following sources:

60.2.5. Domestic and foreign aid and donations to support local development

The Budget Law makes it clear that *soum* government is responsible for undertaking pastureland, livestock risk and environmental protection functions using its budget resources. However, *soums* seriously lack financial resources to carry out these tasks and one the key reasons for that are key resources such pastures are used free.

60. Local development fund

60.1. General manager of budget of different levels shall have local development fund to support local development.

60.2. Local development fund is composed of following sources:

60.2.1. Transfers from the central fund of local development;

60.2.2. Funding as specified in the article 59.2 of the is law;

60.2.4. Additional sources accumulated from increased tax rates or saved expenses;

60.2.5. Foreign and domestic contributions, aid and financial support from donor projects received for the purposes to support local development;

60.2.6. 10% of the difference between the total revenue of mining royalties (except for those specified in the article 47³ of the Law on Minerals) and the royalties paid by legal bodies implementing large projects of state importance;

60.2.7. 50% of fees from mining exploration and exploitation licenses;

Environmental Protection Law

3.1.1 Object of protection is land...;

3.2.7 Environmental protection is about sustainable use of resources without damaging natural recovery and in line with carrying capacities;

3.2.8. Environmental management partnership is about issuing rights to use, protect and recover natural resources to local citizens to ensure resources are used in a fair and transparent way and their benefits are distributed equally;

17.1.5 *Soum khurals* are entitled to grant protection, use and possession rights to partnerships based on proposals from *bagh common khurals*

17.2.7 Based on decision by *khurals*, *soum* governors are responsible for establishing agreements with partnerships on protection, use and possession of natural resources and monitoring over their implementation

The Environmental Protection Law provides key regulations on how land including pastures can be contracted to partnerships or groups of local people to make sure that it is used in a sustainable, transparent and equitable manner.

Law on Natural Plants

Article 3 Vegetation fund & its classification

1. The vegetation fund consists of moss, algae, calyx, fungi and microorganisms on the land and water territory of Mongolia.

2. Plants are assigned to the following classifications based on conservation status and renewability:

- 1/endangered;
- 2/vulnerable;
- 3/abundant;

Article 6 Plant use fees

1. All citizens, economic entities and institutions are legally obligated to pay the fee for the use of plants on land owned by the state.
2. The minimum fee, maximum fee, discounts and exemptions shall all be regulated by the law.

Article 7 Perform the study of vegetation distribution & plant resources and establishing the ecological and economic evaluation

1. The vegetation distribution and plant resources study of production plants shall be conducted every 5 years by the state administration in cooperation with a scientific institution.
2. The ecological and economic evaluation of vegetation shall be performed by the state administration.

Article 14 Using hay & vegetation for livestock raising

- 1 All citizens, economic entities and institutions engaged in livestock herding shall comply with articles 52 & 53 of the Land Law of Mongolia when grazing livestock, haymaking and using the vegetation of hay fields located in their respective *soums* or districts.
2. The *soum*, district *khural* of citizens' representatives and *bagh*, sub district meetings, through the conclusion of a professional institution, are authorized to prohibit livestock grazing & haymaking on pastureland for up to 2 years to protect endangered plant species.
3. The *soum*, district, *bagh* and sub district governor shall arrange the scheduled adjustment of pasture & hay field carrying capacity to ensure the protection & recovery of vegetation.

According to the Law on Natural Plants, pastures fall in the class of abundant plants and their use shall be regulated by the Land Law.

Law on Natural Resource Use Fees

Article 5 Plant use fees through classification

- 5.1. Fees are applied to the use of plants belonging to the following classifications:
 - 5.1.1. Endangered plants;
 - 5.1.2. Vulnerable plants;
 - 5.1.3. Abundant plants;

Article 9 Indicator for the natural plant use fee

9.1. The indicator for the natural plant use fee shall be established by the ecological and economic evaluation percentage that determines the quantity or number of a particular plant species per kilogram of weight on a specified date.

14.1. The natural plant use fee amount shall be paid in MNT as determined by the ecological and economic evaluation percentage indicator stated in article 9.

Natural plant classification	Ecological and economic evaluation percentage of the fee indicator	
	Minimum	Maximum
1. Endangered	25	30
2. Vulnerable	15	20
3. Abundant	5	10

18.1. A portion of the fee income stated in article 13.2 shall be used for environmental protection and the renewal of natural resources. The minimum amount and percentage of the annual budget to be allocated for the aforementioned spending shall be determined as follows:

Natural resource use fee type	The minimum amount & percentage of the fee income to be used for environmental protection and the renewal of natural resources. /By percentage from the total fee income/
1. Natural plant use fee income	15 percent

Article 19 Discount & exemption from the use fee

19.1. Exemption from the plant use fee shall be allowed on the basis of the following circumstance(s):

19.1.3. All citizens, economic entities and institutions using natural plants of pasture & hay fields located outside crop production regions are allowed exemption from the plant use fee.

Article 23 Payment of natural resource use fee

23.1. The *soum* and district governor shall appoint the official authorized to collect the natural resource use fee.

23.2. The natural resource use fee income shall be transferred to the local budget within the 10th of the upcoming month and the annual report shall be filed with the tax authority within January 10 of the upcoming year.

The Law on Natural Resource Use Fees provides important regulations on how abundant plans (pastures included in this category) should be charged a certain fee for their use. However, it exempts pasture use fees except for crop production regions. As the Land Payment Law has exempted all herder households from paying the pasture use fees, crop production regions are unlikely to collect pasture use fees from herders.

Law on Soil Protection and Preventing Desertification

7.1. The following measures shall be undertaken to protect soil and prevent desertification:

7.1.4. Use pastures by ensuring a balance with animal numbers and through seasonal rotations

The law provides an important message that keeping optimum stocking density is crucial for pastureland soil protection and preventing desertification.

Conclusions

- Mongolia has quite comprehensive legal environment for rangeland management and natural resource fees

- However, enforcement of these legislations is far from satisfactory with one of the reasons being a lack funding for *soums* to perform their functions
- The Land Payment Law and the Law on Natural Resource Use Fees have made the use of pastures free of charge. Unless exemptions of pasture use fees change in these legislations, local governments will continue to lack financial resources to undertake their pastureland, livestock risk and environmental management functions properly.
- Pastureland use agreements can be enforced based on the Article 327 of the Civil Code, the Article 52.2 of the Land Law, Articles 17.1.5 and 17.2.7 of the Environmental Protection Law

3. Proposal for implementation mechanisms of the grazing fee system at local level, including capacity development activities

3.1 Background and lessons learnt

The herd size of Mongolia was more or less constant at around 25 m animals before 1990. At that time, the wool, cashmere & milk of animals were sorted, collected and sold every year. Moreover, the animals were able to sustain the livelihood of herders and herders were well protected from droughts & *dzud*. In the past years, the number of animals has grown constantly and reached a total of 61.8 million in 2016. The country's 110 million of ha of pastures' carrying capacity of around 50 million sheep units were exceeded by 104%. To make matter worse, pastureland is becoming scarcer as it is converted to other uses such as mining, road, communication and tourism activities.

If the current trend continues, pasture degradation & scarcity gains ground and the sustainable development of livestock herding and herders' livelihood is jeopardized.

Why herders maximize animal numbers, are they guilty?

Competing to maximize own benefits given the existing incentive structures is dictated by a market economy.

The existing incentive mechanisms imposed on herders are:

- Herders use pastures and the resources on them, such as water and salt licks, free of any charge and without any accountability mechanisms for overgrazing and degradation.
- Absence of any incentive mechanisms towards maintaining optimum stocking density
- Absence of any incentives stimulating livestock and product quality (Example: cashmere and meat price are based on purely quantity-kg)
- Quality and other standards are not enforced largely due to difficulties of controlling animal and product sales currently undertaken largely at herders' camp sites

Thus, the current incentives dictate that herders rationally choose maximizing animal numbers as the cheapest and easiest way of income generation and it is not herders' fault.

Are there legitimate ways to control animal numbers?

Keystone of nomadic pastoralism in Mongolia was availability and rotational use of seasonal pastures and access to reserve areas in emergencies. For centuries this was regulated by customary arrangements and was effective in ensuring ecological sustainability and minimizing animal losses

during natural disasters. However, given the lack of incentive mechanisms, the traditional customary arrangements have become futile against pressures imposed on herders to increase herd size to survive economically for the poor and become richer for the rich. The solution is to recover traditional best practices through formally acknowledging and protecting informal user rights of each herder in an equitable way - to protect the poor against losing their grazing rights and restrict the rich expanding their user rights. The only legitimate way to implement it is to introduce enforceable land use agreements for herder groups or partnerships based on the Land Law and the Environmental Protection Law. The land use agreements with as much as possible term with inheritable rights will cherish ownership mentality towards pastures and attached stocking density limits will facilitate the reconciliation of animal numbers with pasture carrying capacities.

There is a plenty of evidence that pastureland use agreements can be successfully introduced in Mongolian conditions. In 2009-2012, under the “Peri-urban rangeland” supported by the Millennium Challenge Corporation CPR has tested the feasibility of land use agreements for 384 herder groups in the steppe & forest steppe regions based on the existing land use patterns and keeping herders’ mobility across seasonal pastures as a key risk management strategy. Under the project CPR has developed and applied guidelines to introduce land use agreements for nomadic herders to avoid both physical and economic resettlement involving education campaign to promote benefits of land use agreements, herders identifying group memberships and land use boundaries and consulting with all neighbors to get no objection signatures, *bagh* meeting discussion and approval of land use boundaries and a final decision by *soum* governors to issue land rights to herder groups for a minimum of 15 years. The pilot was successful in promoting enforceable land use agreements. Out of 384 herder groups 64.2% have reached the targets to reconcile animal numbers and the carrying capacity within 2 years.

In 2014-2015 under UNDP-funded project “Mongolia’s Network of Managed Resource Protected Areas” CPR has successfully piloted an integrated community conservation model for 6 herders groups in Khentii and Dornod *aimags* with pastureland use agreements and agreements to protect wildlife on contracted pastures established between herder groups and *soum* Governors and pastureland biodiversity offset methodology developed and approved by the local *soum khurals* (councils).

In 2015-2016 CPR has undertaken the assessment of pasture user groups and associated land use agreements promoted by Swiss Development Cooperation /SDC/ funded Green Gold project in several *aimags*. As a part of assignment CPR has assisted 17 herder groups in developing and implementing comprehensive 4-year action plans to achieve, among others, the stocking density targets stipulated by land use agreements. In total 17 herder groups have targeted to reduce the total sheep units from 76620 at the end of 2014 to 58930 in 2018, which is very ambitious as the national herd has a trend increase by 10% annually for the past 5 years. At the end of 2015, the first year target of reducing animal numbers has been achieved by 80% with some groups achieving the target by 102.5-131%. The assessment recommendations also included to decrease the size of pasture user groups into smaller herder groups as too large groups fail to promote among members ownership mentality towards pastures and collaboration and collective decision making was difficult to non-existent.

Are there additional incentives needed for herders to reconcile animal numbers with pasture carrying capacities?

The CPR experiences has shown changing herders mentality from the livestock number maximization to productivity improvements does not happen overnight and needs to be facilitated by additional economic incentives in addition to land use agreements to make sure that herders are well aware of benefits of reconciling animal numbers with pasture carrying capacities and potential losses from restricting the herd size growth is compensated by increased productivity and improved access to markets. For this purpose, CPR has promoted to use a range of initiatives in a holistic way including (i) face to face training using clear simple language education materials demonstrating in monetary terms how herders can benefit from these changes; (ii) *soum* Livestock Risk Management Fund to finance herders proposals for improved pastureland, livestock risk management and biodiversity protection through public-private partnership /PPP/ mechanisms (iii) support in value chain areas to facilitate to access better markets to realize benefits of improved product quality. For education campaign the most beneficial tool was CPR-developed herd turn-over model demonstrating superior growth of cash income under the model to reconcile animal numbers with pasture carrying capacity (herd size decreased by 6-8% annually) compared to the existing model in which herders increase the herd size annually by 6-10%. Model estimate is shown in case of an average herder household of Mongolia as of 2016 (See **Table 1**).

Table 1 A model to promote herders income generation in an environmentally friendly way, average herder household of Mongolia as of 2016

Indicators	Base 2016	Year 1	Year 2	Year 3	Year 4	Year 5
Total livestock, million (m)	61.8	57.0	52.6	48.5	44.8	41.3
Total livestock sheep units, m	101.9	94.8	88.1	82.0	76.3	71.0
Livestock per average <i>soum</i>	187137	172659	159310	147000	135649	125182
Livestock per <i>soum</i> sheep units	308813	287190	267111	248465	231148	215062
Sheep units per herder household	634	590	549	510	475	442
Household total income, '000 MNT	11200	18334	17738	17154	16584	15886
Home consumption, '000 MNT	2313	2313	2313	2313	2313	2313
Cash income, '000 MNT	8887	16021	15425	14841	14271	13573
Cash value of decreased herd size '000 MNT	0	2878	2691	2516	2353	2201
Income per sheep unit, '000 MNT	12.9	25.3	26.1	27.0	28.0	28.6

Note:

The total income of herder households increases despite herd size decreases due to the improvement in forage supply, animal productivity & herd structure. The income does not include the annual 10% growth rate of livestock product prices since its effect generally nullifies as a result of inflation of consumer products herders buy.

² Maintaining or increasing the herd size produces income. Decreasing the herd size is not considered to produce income since animals are sold off and opportunities to generate further income are lost. However, cash from sold animals that decrease the herd size can be used for animal productivity improvements, savings and income diversification activities. In the above case, this opportunity is MNT

2.5 million per household, adding up to MNT 25 million for a herder group of 10 households. It is worth noting that herders' income at the exiting scenario of increasing the herd size around 10% annually produces cash income of MNT 10.5 million in 5 years which is 23% lower compared to 13.6 million in the table above.

Livestock production in Mongolia is highly dependent on harsh and variable weather and resulting pasture conditions. Small to medium scale risks can be overcome successfully if herders and *soum* governments prepare well, however, because of future uncertainties and lack of available funding herders they are not doing so. Given the lack of access to credit this situation seriously impedes the capability of herders, especially poor herders in addressing all the challenges herders face in all areas of their businesses especially in risk management. Therefore, it is seen essential to introduce incentive mechanisms capable of triggering good winter-spring preparedness regardless of the weather conditions in a particular year. A potential solution here is, as piloted by CPR in a number of *soums* since 2015, *soum* Livestock Risk Management Fund (LRMF). The local government funds to be used for risk management are regulated by the Budget Law and Rules for Local Development Fund, Finance Minister's Resolution No 43. In practice, these regulations are not enforced well because of low commitment and lack of funding. LRMF intends to mobilize funds through PPP- herders will pay contributions in the sum of MNT 500 per sheep unit in accordance with the article 60.2.5 of Budget Law (62.5% of revenues) and *soum* government will pay matching fund in the sum of MNT 300 per sheep unit in accordance with the 58.4.4 of the Budget Law (37.5% of revenues) totaling MNT 800 per sheep unit. Once having paid their contributions, herders are entitled to get funds for risk management in the sum of 30% increase of what they have paid (81.75% of expenditure) and the *soum* government uses the remaining 18.25% of the fund for *soum* and *bagh* level risk management activities. In this way, the *soum* fund for risk management is increased by 60% from herders' contributions and herders are motivated in risk management as they receive 30% more than what have contributed. Herders use the fund on eligible activities directly linked risk management.

3.2 Proposal for implementation mechanisms of the grazing fee system including capacity development activities

Based on the past best practices and lessons learnt, a grazing fee system is proposed to be introduced as a part of comprehensive sustainable livestock development policy aimed at putting the livestock herding on sustainable path of development with grazing fees playing a key role as a revenue source and incentive mechanisms for building *soum* pastureland, livestock risk and environmental management capacities and changing herders behavior from the livestock number maximization towards productivity improvements and market competitiveness.

The sustainable livestock development policy is proposed to be implemented through the following components:

- Establish Pastureland use agreement (LUA)s to make sustainable use of pastures a herders' self-interest, to protect the poor against losing their grazing rights and restrict the rich unrestrictedly expanding their user rights and to protect herders interests against chaotic converting of pastures into mining and other uses

- Collect grazing fees from every animal and use revenues in the sum of around MNT 800 per sheep unit back on improving pastureland, livestock risk and environmental management through the following incentive mechanisms:
 - MNT 135 for the *soum* fund to stimulate local government's participation and finance *soum's* pastureland, livestock risk and environmental management policies (currently *soums* lack operational costs for these activities and allocate budget only to pay salaries of relevant staff)
 - MNT 365 for the *Soum* Livestock Risk Management Fund /LRMF/ to finance proposals from herders groups on pastureland & livestock risk management
 - The remaining part (around MNT 300) for the Livestock Quality Stimulation Fund /LQSF/- paid to every animal quality certified and sold to the market: a minimum of around MNT 2000-2600 per sheep unit /as only 13-15% of animals are sold annually for meat, revenues collected MNT 300 per sheep of all animals grows by around 7-8 folds 100:13-15 folds /
- Annually estimate the pasture carrying capacities and in case carrying capacity has been exceeded, create a system in which animals that exceeded pasture carrying capacity are sold to increase the income of herders
- Encourage herders, who have established LUAs towards protecting wildlife and other natural resources and benefiting from their sustainable uses through establishing appropriate use agreements
- Organize the value chains of animals and animal products through cooperation of all involved parties using the LQSF as an incentive mechanism and funding source to enhance market competitiveness of livestock products and increase income for every involved party

Revenue collection and way herders can benefit. Grazing fees shall be imposed on the total sheep units based on animal census data at the end of the previous year & shall be collected by 1 June. Grazing fees from animals belonging to absentee owners shall be collected from herders who look after these animals. Herders using pastures in other *soums* for a certain period of time shall pay grazing fees to that *soums*, however, shall be freed from paying grazing fees in own *soums* for that period. Herders keeping more pastures beyond their needs shall be imposed grazing fees per ha basis to discourage such attempts. *Soum* government shall exercise authorities to adjust implementation arrangements to specific *soum* conditions such as using own list of eligible activities to be financed from LRMF, adjustment coefficients to change grazing fees based on location of herders, concessions on grazing fees in particular conditions such as outbreak of contagious diseases etc.

Herders are entitled to benefit from revenues:

- ▶ If established pastureland use agreements /PUA/, are entitled to access both LRMF and LQIF and get funds from LRMF in proportion of the rate of fulfillment duties for reconciling animal numbers with pasture carrying capacities (if duties are fulfilled for 80% then get 80% of potential funding from LRMF) and get quality premiums from LQSF for each animal meeting quality standards
- ▶ If not established PUA, are entitled to access LQSF only but required to meet the condition of identifying herder group/environmental management partnership memberships, land use boundaries in consultation with neighbors and developing and approving by a meeting of all

members of a 5-year plan to reconcile animal numbers with pasture carrying capacities with yearly targets. LQSF quality premiums shall be paid to each animal meeting quality standards

These conditions are to leverage herders changing their behavior. As herders pay significant amount of fees they will be interested in meeting these conditions to access LRMF and LQSF.

Soum disposal fund. As mentioned in section 2, according to the Budget Law *soum* governments are responsible for undertaking pastureland management, livestock risk and environmental protection in their territories. However, a lack of available funding seriously inhibits local governments' capacities to undertake these functions properly. Therefore, a portion of grazing fee revenues in the sum of MNT 135 is proposed to strengthen *soum* government's financial capacities to undertake their mandatory functions. For an average *soum* this portion of grazing fees accounts for around MNT 50 m (Details are in the next section 4) which is essential for paying operational costs (currently the *soum* budget finances barely more than salaries of relevant staff) associated with the implementation of *soum*'s pastureland management, livestock risk and environmental protection policies.

LRMF. As mentioned earlier livestock production in Mongolia is highly risky endeavor. Small to medium scale risks can be overcome successfully if herders prepare well, however, because of lack of funding herders are not doing so. Given the lack of access to credit this situation seriously impedes the capability of herders, especially poor herders in addressing all the challenges herders face in all areas of their businesses especially in risk management. Therefore, it is seen essential to use a portion of grazing fee revenues as an incentive mechanism for herders to trigger good winter-spring preparedness. The proposed amount is MNT 365 per sheep unit capable of forming a fund around MNT 300 thousand per a herder household (See details in in the next section 4). LRMF is in fact a mechanism to ensure herders spend an adequate amount of their incomes in risk management instead of spending all in consumption. Herders will access LRMF by developing a proposal to undertake pastureland, livestock risk and environmental protection activities chosen from an eligible list of activities. The *soum* government (a working group or committee composed of key staff including AHBU, land officer, environmental inspector and bag governors can be formed) is responsible for evaluating, endorsing, financing and monitoring over the implementation of herders proposals to LRMF. It is proposed that 80% of funding provided to upon the proposal approval and the remaining 20% is paid upon the implementation evaluation by the government. All transactions shall be transparent and are undertaken through bank payments with herder groups/partnerships having own bank account.

Below is a sample list of eligible activities to be financed from LRMF

1. Manure hay making areas
2. Protect springs, fence its origins
3. Fight against pasture rodents and insects
4. Improve pastures and hay making areas by planting perennials
5. Protect wildlife on pastures under agreement
6. Repair deep well facilities (pump, generator, trough)
7. Build and repair water catchment facilities
8. Plant trees and shrubs for environmental protection purposes
9. Estimate pasture grass yield, carrying capacities

10. Monitoring by group/partnership leaders over the implementation of the pastureland use agreements and sub-projects funded by LRMF
11. Prepare animal feed and establish its reserve fund
12. Repair and upgrade animal shelters
13. Repair hay and fodder storage facilities
14. Make small scale snow breaker
15. Dig and drain hand wells, repair hand well facilities
16. Purchase small-scale hay, fodder making equipment
17. Undertake horticulture activities for income diversification purposes
18. Repair and maintain fencing of hay making areas
19. Purchase breeding animals
20. Measures for animal health improvement
21. Measure for livestock product processing, improving its quality and market linkages

Under the LRMF the biodiversity protection benefits in two ways:

1. Grazing fees will stimulate herders economic behavior change from the livestock number maximization to adopting productivity oriented strategies, in other words environmentally friendly ways of income generation, as a result grazing pressures will reduce providing more space for biodiversity to recover
2. As specified in the list activities eligible for financing from the LRMF, several activities are included like protecting wildlife, planting trees, protecting springs. This is not final list and it can be added with more activities specific in a particular area. The idea of LRMF is to promote bottom-up initiatives of local citizens so that herders can propose what is most important and specific wild animal and plant species can be well considered for protection and funded from the LRMF.

LQSF. A key weaknesses of livestock value chain is lack of organization among herders leading to no linkage of herders to processors and ‘changers’ dominating the market and accruing the biggest portion of margins. Most animals are sold from herders’ camp sites often hand-slaughtered leading to low prices and failures to meet hygiene requirements and export market demands. A solution is to promote cooperation among herders & across value chain participants to organize livestock collection, quality certification and sales through one window and formal partnerships with certified processors. An incentive mechanism is to use a portion of grazing fee revenues (LQSF) to pay herders quality premium to every animal brought to the *soum* procurement point and that meets quality requirements and certified by the relevant *soum* officials and private vets. In this way, herders and changers/marketing cooperative will benefit from price increases due to quality improvements and certification, private animal health service providers can benefit from economies of scale expected from organizing the *soum* animal quality certification in a centralized manner, where *soum* government/AHBU has a major stake and consumers will benefit from safe food supply coming from the livestock sector. Animals meeting quality standards at the *soum* shall be sold through cooperatives in a bulk to certified processors based on partnership agreements.

The estimates of grazing fee and the distribution of revenues collected are discussed in the next section.

The sustainable livestock development policy is believed to result in the following outcomes:

- Fresh and naturally restorable pastures capable of producing ecologically clean animal products
- Better protected against risks and with improved market competitiveness livestock sector
- Natural environment, with rich biodiversity and free of any pollution & degradation
- Local government capable of guiding local economic, social and environmental development with long-term vision and in the best interests of local communities
- Herder households living in the above environment who cooperate with each other and ensure their sustainable livelihoods and supporting herder organizations and businesses

Proposed activities for the implementation

Because the policy targets to change the people's mentality shaped up through many years, the implementation of sustainable development policy is proposed to be carried out through the following activities:

1. Organize face to face training and promotion campaign (donors need to provide funding and technical assistance) to educate stakeholders about the policy goal, benefits and ways they can participate –within one 1 for the date of re-legalizing a grazing fee system. The most cost-efficient way of organizing the education campaign is to train at *aimag* centers *soum* governors, land officers, animal health and breeding unit officers as local trainers so that they could organize the education campaign in own *soums*. The training should cover as the following key topics as a minimum:
 - ▶ Content and benefits (economic/income, environmental and social) of sustainable livestock development policy
 - ▶ Grazing fee as a revenue source and incentive mechanisms for building *soum* pastureland, livestock risk and environmental management capacities and changing herders behavior from the livestock number maximization towards productivity improvements and market competitiveness
 - ▶ Methodologies to estimate grazing fees in *soums*, establish and enforce pastureland use agreements, estimate pasture carrying capacities, promote environmental management partnerships and marketing cooperatives, grazing fee revenue collection and revenue distribution mechanisms (*soum* disposal fund, LRMF, LQSF)
2. Local trainers organize the education campaign in their *soums* to make sure every herder household is reached and trained in the policy goal, content, benefits and ways they can participate and benefit, when necessary local trainers get assistance from qualified trainers/consultants
3. Herders form partnerships, identify memberships, land use boundaries assisted by local trainers
4. *Soum* governments impose and collect grazing fees based on the previous year's livestock census data and organize the implementation of its pastureland, livestock risk and environmental management policies using the enhanced funds from grazing fee revenues
5. Herders partnerships establish pastureland use agreements with *soum* governors and the latter monitors over their enforcement including annual estimates of carrying capacities of

pastures under agreement and the fulfillment of targets to reconcile animal numbers with them

6. Herders' partnerships access LRMF through developing and submitting proposals to the *soum*
7. Herders' partnerships access LQSF based on the number of animals meeting the quality standards
8. *Soums* undertake the control and certification of animals brought by herders in an organized and cost-efficient way
9. Herders partnerships work together through a marketing cooperative to sell quality certified animals to processors (abattoirs) with the longer-term aim to reach high value niche markets of organic, environmentally-friendly and free-range livestock products. Capacity building of marketing cooperatives is organized by qualified trainers
10. Governments undertake regular (annual) reviews of the policy implementation and make required adjustments

4. Estimating the potential revenue from pasture use fees for the period of 2018-2022

The grazing fee was estimated using the developed methodology based on the 2016 livestock number and livestock product prices, the 5-year average grass yield of 2010-2014 from the National Agency for Meteorology, Hydrology and Environmental Monitoring (**Table 1**). The grazing fee estimates by each *soum* of Mongolia is provided in **Appendix 1**.

As shown in **Table 2**, the grazing fee per sheep unit is MNT 764-845 out of which 135 goes to the *soum* disposal fund, 365 to the livestock risk management fund (LRMF) and 264- 345 to the livestock quality stimulation fund (LQSF). As for an average *soum*, the grazing fee revenue is MNT 283-334 m, the *soum* disposal fund is 47-59 m, LRMF is 126-159 and LQSF is 106-131 m. The total revenue for the nation is 102.2 billion. As for an average herder household, the total income is 14.2-18.7 including home consumption and livestock growth. The grazing fee per household is MNT 524-739 thousand or 3.7-4.5% of herders' annual income. However, herder get back around 80% of fees paid through LRMF and LQSF, so unreturned fees account for only 0.59-0.75% of herders' income.

Table 2 Grazing fee estimates, as of 2016

	High Mountain	Forest steppe	Steppe	Gobi	Depression of Great Lakes
1 Sheep Unit Estimate, MNT					
Grazing fee	845	828	764	802	838
Revenue Distribution					
<i>Soum</i> disposal fund	135	135	135	135	135
LRMF	365	365	365	365	365
LQSF	345	328	264	302	338
Average <i>soum</i> estimates					
Pastureland, ha	257978	167095	336080	604592	369090
Grass yield, kg of dry matter	258	454	380	109	142
Livestock number in sheep units*	382688	367830	436494	353557	344710

Number of herder households	617	505	452	440	404
Number of sheep units per household	620	728	966	804	853
Total grazing fee revenues, m MNT	323	305	334	283	289
Revenue Distribution, m MNT					
<i>Soum</i> disposal fund	52	50	59	48	47
To herders from LRMF	140	134	159	129	126
To herders from LQSF	131	121	116	106	116
Number of <i>soums</i>	60	82	78	60	51
Regional fee revenues, m MNT	19380	25010	26052	16980	14739
National revenues, MNT billion	102.2				
Average herder household estimates					
Household livestock income, '000 MNT	14163	16581	18664	14327	16392
Income per sheep unit, MNT	22835	22764	19327	17830	19211
Grazing fee total, '000 MNT	524	603	739	644	716
Benefit from LRMF, '000 MNT	226	266	352	293	311
Benefit from LQSF, '000 MNT	214	239	255	242	289
Benefit total from funds, '000 MNT	440	505	607	536	600
Share of total fee in income, %	3.7	3.6	4.0	4.5	4.4
Share of unreturned fee in income, %	0.59	0.59	0.71	0.75	0.71

*Livestock number includes animals of absentee owners

The grazing fee forecast for 2018-2022 is estimated under the current scenario of increasing animal numbers 10% annually as well as in the opposite scenario to decrease the herd size 10% annually.

Table 3 Forecasts for national grazing fee estimates, 2018-2022

Indicators	Scenario to increase herd size 10% annually						
	2016	2017	2018	2019	2020	2021	2022
Livestock number, million sheep units	126	135	149	164	180	198	218
Grazing fee per sheep unit, MNT	811	824	840	854	867	879	890
Total grazing fee, MNT billion	102.2	111.3	124.9	139.7	156.1	174.1	193.9
Indicators	Scenario to decrease herd size 10% annually						
	2016	2017	2018	2019	2020	2021	2022
Livestock number, million sheep units	126	135	121.7	109.5	98.6	88.7	79.8
Grazing fee per sheep unit, MNT	811	824	804	782	758	731	701
Total grazing fee, MNT billion	102.2	111.3	97.8	85.7	74.7	64.8	56.0

As shown in **Table 3** at 10% annual increase rate, the livestock number increases from 111.3 million sheep units in 2017 to 193.9 m in 5 years. This is unlikely scenario as the pasture carrying capacities are already exceeded. The opposite scenario shows that the livestock number can be decreased to 79.8 m in sheep units or around 39 m in physical units in 5 years. This is a desirable scenario as a move towards an optimum stocking density will result in increased land, animal productivity, herders' income and improved biodiversity protection. Grazing fee per sheep unit increases as animal numbers and the rate of overgrazing increases and vice versa.

5. Draft the necessary amendments to legislation that would be required to successfully re-legalize grazing fee

As mentioned in section 3, pastureland use agreements are proposed as a key tool to leverage herders to reconcile animal numbers with pasture carrying capacities in order to get back the most part (around 80%) of grazing fees paid through accessing the *soum* LRMF. Therefore, the legal environment related to pastureland use agreements is essential. Improving the legal environment for promoting pastureland possession or use agreements through drafting a separate law or making amendments to the Land Law has been attempted several times. However, mostly due to political reasons as well as a lack of understanding of the problem, these attempts have not succeeded. Currently, the pastureland protection law was drafted and the Ministry of Food, Agriculture and Light Industry is attempting to promote it. It is not clear yet whether this latest attempt will succeed or not. Therefore, it seemed more practical to look for opportunities to enforce pastureland agreements within the existing legal framework. The answer is very positive, there is a good scope for introducing pastureland use agreements using the effective legislation and a few legal amendments are needed to make them strengthened further. Below are effective laws and proposed amendments.

Applying the Environmental Protection Law for introducing pastureland use agreements

To be based on the following articles:

- Object of protection- land/3.1.1/; environmental protection is about sustainable use of resources without damaging natural recovery and in line with carrying capacities /3.2.7/; environmental management partnership is about issuing rights to use, protect and recover natural resources to local citizens to ensure resources are used in a fair and transparent way and their benefits are distributed equally /3.2.8/; *soum khurals* are entitled to grant protection, use and possession rights to partnerships based on proposals from *bagh* common *khurals* /17.1.5/ based on decision by *khurals*, *soum* governors are responsible for establishing agreements with partnerships on protection, use and possession of natural resources and monitoring over their implementation/17.2.7/

Make the following amendments to the Land Law:

- 6.2.1. ~~pasturelands~~, **otor reserve areas, pastureland for crossing routes, naturally formed rivers, springs, lakes, ponds, water-bearing points** and salt licks /common use land/;

Where highlighted by strikethrough shows removals and red shows additions.

Rationale is to make land use agreements cover all pastures

52.2. In order to prevent pastures from over-grazing, based on land use traditions, pasture capacity and regional specifics and proposals from *bagh khurals*, the *soum* Governor may allow **environmental management partnerships** to use land upon relevant agreements and terms.

Where highlighted by strikethrough shows removals and red shows additions.

Rationale is to make land use agreements cover all pastures and make the article compatible with the Environmental Protection Law.

Legal solution to grazing fees- Amendments to Land Use Payment Law:

8.1.1 Free herder households from paying fee for the use of pastures and hayland /**annul**/

6.1.1 Impose pastureland use payment, on sheep unit **based on or differentiated by livestock product yield, value, animal species, location and stocking rate** (*revise*)

Where highlighted by strikethrough shows removals and red shows additions.

Rationale is to re-legalize grazing fees and make estimates compatible with the proposed methodology.

6.2 Coefficients to convert animal species into sheep units horse **8**, cattle ~~6~~ **4**, camel ~~5~~ **3**, goat ~~0.9~~ **2** (*change coefficients*)

Rationale is to make estimates compatible with the proposed methodology.

Article 7 Land use payment rate

(**annul and add a new article as follows**)

Pastureland use payment shall be established by the Government in accordance with 6.1.1

Rationale is to make estimates compatible with the proposed methodology.

Article 8 Land use payment concessions

8.2. Rules to grant land use payment concessions and **rewards** to land users engaged in environmentally-friendly practices to protect and recover land shall be established by the Government (*revise*)

Where highlighted by red shows additions

Rationale is to legalize the Livestock Quality Stimulation Fund paying quality premiums to herders.

Article 10 Land use payments **except for pastureland use payments** shall be paid to the *aimag*, capital city, *soum* and district budget and **pastureland use payments shall be paid to the *soum* and district budget**

Where highlighted by red shows additions

Rationale is to make sure that grazing fees are collected to the *soum* budget.

Budget Law

60. Local development fund

60.2.7 The difference between the total grazing fee revenues and the revenues going to the soum disposal fund, **add new provision**

Rationale is to make LRMF and LQSF as a part of local development fund

“Guidelines for local development fund” Resolution No 43, Minister of Finance, March 6, 2014

Four. Principles to be applied in planning projects and measures financed from local development fund (add new provision)

4.10 Portions of grazing fees shall be used as follows:

4.10.1 MNT 365 for the *Soum* Livestock Risk Management Fund /LRMF/ to finance proposals from herders groups on pastureland & livestock risk management (activities specified in an eligible list of activities)

4.10.2 The remaining part (around MNT 300) for the Livestock Quality Stimulation Fund /LQSF/- paid to every animal quality certified and sold to the market

Rationale is to make portions of grazing fee be used on specified designations

6. Policy advocacy strategy to introduce grazing fees

The following consultation meetings and workshops have been organized on the developed methodology and results to get stakeholders’ feedback and recommendations for promoting grazing fees including potential advocacy strategies:

1. Ministry of Food, Agriculture and Light Industry (MOFALI)
2. Ministry of Environment and Tourism Development (METD)
3. Civil society organizations, researchers and donor projects
4. Ministry of Finance
5. Tuv *aimag* government
6. Dundgobi *aimag* government
7. Luus *soum* (Dundgobi *aimag*) government and herders representatives
8. Undurshireet (Tuv *aimag*) government and herders representatives
9. Orkhontuul (Selenge *aimag*) government and herders representatives

The consultation meeting with MOFALI was organized twice including key ministry officials like Mr. Choi-Ish, the head of the Department for the Livestock Policy Implementation, Mr. Enkh-Amar, the head of the Department for Strategic Policy and Planning, G. Battsetseg, head of the Legal Division and others.

Mr. Choi-Ish delivered the closing statement to conclude the workshop. He emphasized that the support of grazing fees is not only limited to the Ministry and policy researchers. For instance,

throughout the recent animal census meetings, many herders across many locations expressed their strong support for grazing fees and deemed it necessary that the government take decisive action to initiate its implementation.

The second meeting with MOFALI was held on 11 January 2018 at the ministry involving Mr. Choi-Ish, Head, Department for the Livestock Policy Implementation Coordination, Mr. Amgalanbaatar, Head, the Inter-*aimag* Otor Pasture Administration, Mr. Byambadorj, Lead Specialist, Department for the Livestock Policy Implementation Coordination, Ms. Zolzaya, Specialist, Inter-*aimag* Otor Pasture Administration. The meeting has discussed the legal solutions proposed by CPR to introduce grazing fees. Mr. Choi-Ish said that the proposed solutions are valuable and the MOFALI consider them as one of potential ways to promote the grazing fee system.

The proposed grazing fee methodology and results have been discussed at the workshop organized on 10 January 2018 by the BIOFIN project for its steering committee members involving Mr. Batjargal, head of the Public Administration Department of METD, other staff members of METD as well as representatives from other ministries, agencies and UNDP staff members headed by Ms. Daniela Gasparikova, DRR UNDP. The presentation on the grazing fee methodology and results has been made by Mr. Enkh-Amgalan, followed by a few questions and comments. In general, the audience was supportive of the proposed methodology and key results.

The workshop among civil society organizations, researchers and donor projects was held in the meeting room of the Center for Policy Research on January 11, 2018. The presentation, on grazing fee methodology and key results, has been made Mr. Enkh-Amgalan followed by question/answer sessions and discussions.

Mr. Chimed-Ochir, BIOFIN project advisor gave information about the BIOFIN project and asked for clarification regarding the some figures in the presentation. He also highlighted the need to consider the herd size of households, the possibility of differentiating between herder households and households with livestock and the legal environment in which the grazing fee income is allocated either to the *aimag* or the *soum* budget. Furthermore, her recommended that a NGO organization be acting as a lead in lobbying the draft legislation like the Mongolian Association for Pasture User groups as UNDP has limitations in the lobbying process.

Mr. Enkh-Amgalan responded to issues raised by the workshop participants. As for progressive grazing fee, he said, the idea seems is attractive, however, there are strong arguments against it. **First**, grazing is payment for the use of natural resources, but not income tax, sheep of richer herders ears the same amount of pasture forage as the sheep of poorer herders, so there is no basis to impose higher fee on animals of richer herders, **second**, grazing fee is increased if herders overgraze pastures, meaning increasing herd size beyond pasture carrying capacities is already taken into account, which some argue that big herds are already taken into account and progressive grazing fee is double counting, **third**, because of newly introduced taxes since 2018 the current political situation is to avoid any tax increases, so increasing fees for richer herders might seem inappropriate in the current situation. Because of these considerations we recommend that the progressive grazing fee be rejected for the time being.

Mrs. Khishigjargal, UNDP highlighted that the grazing fee proposal has been successfully presented to the Minister of METD and has received support. It is now important to focus on lobbying in order to create the necessary legal environment. There is a need for launching rigorous promotion and advertising, to ensure the participation of donors and other institutions in the lobbying process and utilize social networks for the purpose of advertising.

The workshop for the Ministry of Finance was organized on 19 January 2018 at the general meeting hall of the Ministry of Finance. The audience including 11 staff members of the ministry's budget revenue, budget expenditure and taxation divisions was very interested in the methodology, potential revenues collected and distributions schemes and expressed their support as long as a political decision is made by the Parliament.

Key comments from consultations organized in *aimags* and *soums*:

- LQSF is a good mechanism to leverage herders selling more animals to the market
- It would be good if *soums* have own slaughter units
- Cooperatives need to be strengthened to undertake its animal sales functions properly
- Introduce a mechanism to discourage herders keeping more pastures beyond their needs
- It is good to have independent source of financing risk pastureland management at *soums*
- Gazing fees need to be imposed on all animals regardless of type of ownership
- Simple language explanation materials need to be circulated to herders
- Mechanisms to apply in cases of emergencies need to be carefully considered
- The current level of around MNT 500 per sheep unit is a good estimate, however, poor herders may need some types of concessions
- Coefficients to convert sheep units may need to be different by ecological regions
- Pastureland use agreements have been piloted successfully in the past, so needs to be further promoted
- Make sure that revenues are used by *soums* rather than going to *aimag* or state budget
- It is good for herders to pay something to the local budget as they face difficulties in claiming any assistance from the local budget as they have not paid anything in the past
- Make sure that herders migrating to other *soums* because of emergency conditions are not charged higher fees
- Consider concessions in emergency cases such as outbreak of contagious diseases
- Consider concessions in cases of high pressures of wildlife on pastures

Detailed information on consultation workshops/meetings is provided in **Appendix 2**.

Based on the recommendations from the consultation workshops and past experiences in promoting various legislations the following is proposed.

Lobbying strategy

Given the short timeframe and limited finances, promotion documents to be circulated through mass and social media, forums and workshops are proposed as the most suitable methods of lobbying.

Promotion documents will make a good starting point for lobbying and provide detailed information on the proposed grazing fee system. The evidence of support provided by herders and local

governments to various elements of the proposed system (proxy grazing fee, LRMF, pastureland use agreements etc.) as expressed in the surveys organized in the past should be an essential part of the promotion documents. The documents will be prepared on specific key points of the system and its benefits to all key stakeholders-the government, local government, herders, others in the private sector.

There should an effort (by donors and civil society organizations) to facilitate the establishment of a specific Working Group including representatives from key ministries such as:

- Ministry of Food, Agriculture and Light Industry (MOFALI)
- Ministry of Environment and Tourism Development
- Ministry of Finance
- Agency for Land Relations, Geodesy and Cartography, Ministry of Construction and Urban Development
- Representatives from relevant research and civil society organizations (candidates to be consulted with key ministries)

A forum that can be administered by the Working Group to be led by one of the key ministries, perhaps MOFALI, will make the lobbying a regular process through on-line promotion and regular meetings with different interest groups including supporting donors.

Workshops are organized to promote the grazing fee system to different stakeholders including MPs, ministries and agencies as well as local government representatives depending on the budget availability.

The lobbying can be proposed to be undertaken through the following circular stages:

- Develop lobbying plan
- Implement the lobbying plan
- Analyze lobbying results and report to the Working Group on a by-weekly basis
- Provide feedback to stakeholders
- Evaluate the success of the past lobbying activities and reflect in the future planning and implementation

As suggested by consultation workshops, an appropriate NGO can be selected and contracted by supporting donors (UNDP and others) to assist the Working Group (member government officials may not have time for day to day operation) in day-to-day activities including hiring short-term consultants and administering financial matters.

Appendix 1 Grazing fee estimates by ecological zones, *aimags* and *soums*, 2016 livestock number and price, 2010-2014 grass yield

Zone Code	Numbering in zone	Aimag	Soum	Pasture		Livestock number sheep units	Grazing fee per ha, MNT	Grazing fee per sheep unit, MNT	Grazing fee per sheep-month unit, MNT	Total fee revenue, million MNT	Revenue distribution, million MNT		
				Area, ha	Grass yield, kg of dry mass						Soum disposal fund	Livestock Risk Management Fund	Livestock Quality Stimulation Fund
1	1	Arhangai	IhTamir	261137	286	769733	2692.7	913.5	76.13	703	104	281	318
1	2	Arhangai	Ondor-Ulaan	305645	362	738085	2091.7	866.2	72.18	639	100	269	270
1	3	Arhangai	Tariat	151889	355	515396	3076.1	906.5	75.54	467	70	188	210
1	4	Arhangai	Hangai	330734	199	269620	637.7	782.2	65.18	211	36	98	76
1	5	Arhangai	Cecerleg	190551	267	579361	2802.3	921.7	76.81	534	78	211	244
1	6	Arhangai	Chuluut	254674	328	468582	1546.8	840.7	70.06	394	63	171	160
1	7	Arhangai	Erdenemandal	255402	349	864476	3073.2	908.0	75.66	785	117	316	353
1	8	Arhangai	Bulgan	152363	237	324822	1920.3	900.7	75.06	293	44	119	130
1	9	Arhangai	Jargalant	89692	283	534622	5707.8	957.6	79.80	512	72	195	245

1	10	Bayan-Olgii	Bugat	195401	191	212994	919.2	843.3	70.28	180	29	78	73
1	11	Bayan-Olgii	Bulgan	461383	76	301355	585.7	896.8	74.73	270	41	110	120
1	12	Bayan-Olgii	Buyant	181428	190	253039	1224.8	878.2	73.18	222	34	92	96
1	13	Bayan-Olgii	Deluun	495524	167	566740	994.8	869.8	72.48	493	77	207	210
1	14	Bayan-Olgii	Nogoonnuur	379151	174	409159	924.0	856.2	71.35	350	55	149	146
1	15	Bayan-Olgii	Sagsai	167805	98	68285	319.8	785.9	65.50	54	9	25	20
1	16	Bayan-Olgii	Tolbo	282611	132	306096	965.0	890.9	74.24	273	41	112	120
1	17	Bayan-Olgii	Ulaanhus	462852	91	310955	591.0	879.7	73.31	274	42	113	118
1	18	Bayan-Olgii	Cagaannuur	0	0	0	0.0						
1	19	Bayan-Olgii	Cengel	263069	135	395570	1383.4	920.0	76.67	364	53	144	166
1	20	Bayan-Olgii	Altai	268214	262	306734	909.4	795.2	66.27	244	41	112	91
1	21	Bayan-Olgii	Altancogc	146559	142	212436	1323.1	912.8	76.07	194	29	78	88
1	22	Bayan-Olgii	Bayannuur	158294	96	303212	1830.2	955.5	79.62	290	41	111	138
1	23	Bayan-Olgii	OElgii	0	154	581254	0.0						
1	24	Bayanhongor	Galuut	339128	215	546484	1419.3	880.8	73.40	481	74	199	208
1	25	Bayanhongor	Gurvanbulag	436929	134	296019	558.1	823.8	68.65	244	40	108	96
1	26	Bayanhongor	Erdeneogt	274469	227	425293	1346.6	869.0	72.42	370	57	155	157

1	27	Zavhan	Bayanhairhan	226504	230	191745	641.5	757.8	63.15	145	26	70	49
1	28	Zavhan	Ider	146203	252	486315	3101.6	932.5	77.70	453	66	178	210
1	29	Zavhan	Ih-Uul	172342	327	259327	1212.8	806.0	67.17	209	35	95	79
1	30	Zavhan	Nomrog	284788	250	368210	1069.3	827.0	68.92	305	50	134	120
1	31	Zavhan	Otgon	570140	403	285977	359.8	717.4	59.78	205	39	104	62
1	32	Zavhan	Songino	242694	307	384049	1308.7	827.0	68.92	318	52	140	126
1	33	Zavhan	Tosoncengel	220837	247	223169	790.4	782.2	65.18	175	30	81	63
1	34	Zavhan	Tuedevtei	250748	154	322740	1149.5	893.1	74.42	288	44	118	127
1	35	Zavhan	Telmen	307894	251	234843	538.5	706.0	58.84	166	32	86	48
1	36	Zavhan	Tes	62962	359	195406	2782.8	896.7	74.72	175	26	71	78
1	37	Zavhan	Cecen-Uul	230442	220	208032	706.2	782.3	65.19	163	28	76	59
1	38	Zavhan	Bayantes	376033	176	242905	488.9	756.8	63.07	184	33	89	62
1	39	Zavhan	uliastai	0	183	154509	0.0						
1	40	Zavhan	Yaruu	479632	308	308706	368.5	572.5	47.71	177	42	113	22
1	41	Hovd	Duut	212151	112	282137	1229.6	924.6	77.05	261	38	103	120
1	42	Hovd	Monhairhan	167804	86	237460	1338.6	946.0	78.83	225	32	87	106

1	43	Hovd	Most	387525	78	397332	955.4	931.8	77.65	370	54	145	172
1	44	Hovd	Ceceg	255251	66	287406	1066.8	947.5	78.96	272	39	105	129
1	45	Hovsgol	Burentogtoh	251668	231	682010	2503.4	923.8	76.98	630	92	249	289
1	46	Hovsgol	Galt	231680	161	747569	3082.5	955.3	79.61	714	101	273	340
1	47	Hovsgol	Jargalant	120368	397	464540	3505.3	908.3	75.69	422	63	170	190
1	48	Hovsgol	Renchinlumbe	117924	499	374633	2731.2	859.7	71.64	322	51	137	135
1	49	Hovsgol	Tomorbulag	182072	147	598430	3155.5	960.1	80.01	575	81	218	275
1	50	Hovsgol	Ulaan-uul	242561	204	359334	1299.3	877.1	73.09	315	49	131	135
1	51	Hovsgol	Hanh	10728	432	131257	11849.7	968.5	80.71	127	18	48	61
1	52	Hovsgol	Hatgal	0	524	0	0.0						
1	53	Hovsgol	Cagaan-Uul	457434	358	744474	1307.9	803.6	66.97	598	101	272	226
1	54	Hovsgol	Cagaan-Uur	4628	939	106340	22139.0	963.5	80.29	102	14	39	49
1	55	Hovsgol	Cecerleg	349557	317	554111	1302.1	821.4	68.45	455	75	202	178
1	56	Hovsgol	Candman'-Ondor	67286	305	163907	2164.0	888.3	74.03	146	22	60	64
1	57	Hovsgol	Shine-Ilder	152889	597	401229	2091.0	796.8	66.40	320	54	146	119
1	58	Hovsgol	Alag-Erdene	194505	235	453250	2120.5	910.0	75.83	412	61	165	186

1	59	Hovsgol	Arbulag	315407	177	578734	1677.1	914.0	76.17	529	78	211	240
1	60	Hovsgol	Bayanzuerh	166893	368	441552	2317.4	875.9	72.99	387	60	161	166
2	1	Arhangai	Tuvshruuleh	82427	870	292251	2820.4	795.5	66.29	232	39	107	86
2	2	Arhangai	Hairhan	195487	263	670903	3213.2	936.3	78.02	628	91	245	293
2	3	Arhangai	Cahir	271925	69	210594	716.6	925.3	77.11	195	28	77	90
2	4	Arhangai	Cenher	135048	505	717975	4895.6	920.8	76.74	661	97	262	302
2	5	Arhangai	Batcengel	315163	376	791353	2197.5	875.2	72.93	693	107	289	297
2	6	Arhangai	Hotont	179228	595	710089	3465.8	874.8	72.90	621	96	259	266
2	7	Arhangai	Cecerleg hot	0	469	438832	0.0						
2	8	Bulgan	Bureghangai	297388	295	639167	1903.8	885.8	73.82	566	86	233	247
2	9	Bulgan	Mogod	241690	227	651705	2507.6	929.9	77.50	606	88	238	280
2	10	Bulgan	Orhon	329457	251	778735	2154.8	911.6	75.97	710	105	284	321
2	11	Bulgan	Saihan	246086	235	728631	2764.8	933.8	77.82	680	98	266	316
2	12	Bulgan	Selenge	85633	442	233077	2353.1	864.5	72.05	202	31	85	85
2	13	Bulgan	Teshig	38241	511	210670	5083.5	922.8	76.90	194	28	77	89
2	14	Bulgan	Hishig-Ondor	206409	369	531242	2265.9	880.4	73.37	468	72	194	202

2	15	Bulgan	Hutag-Ondor	166551	373	558362	3041.3	907.2	75.60	507	75	204	227
2	16	Bulgan	Bayan-Agt	218107	251	562609	2370.4	918.9	76.58	517	76	205	236
2	17	Bulgan	Bugat	56893	333	253120	4172.0	937.7	78.14	237	34	92	111
2	18	Bulgan	Bulgan	2085	163	153079	73277.1	998.1	83.18	153	21	56	76
2	19	Bulgan	Hangal	57380	214	212918	3532.0	951.9	79.32	203	29	78	96
2	20	Darhan-Uul	Darhan	1432	687	169691	117963.0	995.2	82.93	169	23	62	84
2	21	Darhan-Uul	Orhon	34074	318	99358	2651.1	909.2	75.76	90	13	36	41
2	22	Darhan-Uul	Hongor	137471	470	326964	1986.7	835.3	69.61	273	44	119	110
2	23	Darhan-Uul	Sharyn gol	4369	387	89930	20262.3	984.3	82.03	89	12	33	44
2	24	Dornod	Dashbalbar	760566	752	461298	626.6	1,033.1	86.10	477	62	168	246
2	25	Dornod	Bayandun	477913	1160	308506	966.6	1,497.4	124.78	462	42	113	308
2	26	Dornod	Bayan-Uul	346098	717	246777	597.4	837.8	69.82	207	33	90	83
2	27	Orhon	Bayan-Ondor	0	0	127993	0.0						
2	28	Orhon	Jargalant	39441	0	199017	0.0						
2	29	Ovorhangai	Zuunbayan-Ulaan	251386	611	458818	1315.8	720.9	60.08	331	62	167	101
2	30	Ovorhangai	Uyanga	275432	423	805268	2571.4	879.5	73.29	708	109	294	306
2	31	Ovorhangai	Harhorin	119867	278	678923	5432.5	959.1	79.93	651	92	248	312

2	32	Ovorhangai	Hujirt	122562	472	591545	4432.8	918.4	76.54	543	80	216	248
2	33	Ovorhangai	Arvaiheer	5469	104	491692	89825.3	999.0	83.25	491	66	179	245
2	34	Ovorhangai	Bat-Olzii	32672	698	596922	17688.4	968.2	80.68	578	81	218	279
2	35	Selenge	Hushaat	125213	397	149089	859.8	722.1	60.17	108	20	54	33
2	36	Selenge	Yroo	151616	867	174432	722.9	628.3	52.36	110	24	64	22
2	37	Selenge	Javhlant	73528	523	194538	2209.6	835.2	69.60	162	26	71	65
2	38	Selenge	Zuunburen	77451	664	154035	1435.1	721.6	60.13	111	21	56	34
2	39	Selenge	Mandal	106131	830	328894	2407.3	776.8	64.73	255	44	120	91
2	40	Selenge	Orhon	87132	258	228909	2412.1	918.2	76.51	210	31	84	96
2	41	Selenge	Orhontuul	234405	565	447489	1438.0	753.3	62.77	337	60	163	113
2	42	Selenge	Saihan	88362	347	206100	2043.5	876.1	73.01	181	28	75	78
2	43	Selenge	Sant	95421	414	169886	1435.2	806.1	67.18	137	23	62	52
2	44	Selenge	Tueshig	46789	631	111526	1858.0	779.5	64.96	87	15	41	31
2	45	Selenge	Cagaannuur	188665	309	312576	1399.6	844.7	70.40	264	42	114	108
2	46	Selenge	Saamar	16717	233	60563	3428.3	946.3	78.86	57	8	22	27
2	47	Selenge	Altanbulag	44	250	104443	0.0	999.9	83.33				

2	48	Selenge	Baruunbueren	145247	487	366090	2114.5	838.9	69.91	307	49	134	124
2	49	Selenge	Bayangol	134357	491	309203	1891.8	822.0	68.50	254	42	113	100
2	50	Selenge	Suhbaatar	890	204	55717	62447.0	997.3	83.11				
2	51	Selenge	Huder	44773	1044	87165	1077.1	553.2	46.10	48	12	32	5
2	52	Tov	Batsuember	82325	610	207275	2009.2	798.0	66.50	165	28	76	62
2	53	Tov	Bayandelger	166222	458	386480	1943.8	836.0	69.67	323	52	141	130
2	54	Tov	Bayancogt	105218	505	223458	1702.9	801.8	66.82	179	30	82	67
2	55	Tov	Bayanchandman'	40782	465	117803	2501.1	865.8	72.15	102	16	43	43
2	56	Tov	Jargalant	99396	361	335639	3076.1	911.0	75.91	306	45	123	138
2	57	Tov	Zaamar	238169	551	548053	1842.3	800.6	66.72	439	74	200	165
2	58	Tov	Mongonmor't	86878	327	227594	2347.2	896.0	74.67	204	31	83	90
2	59	Tov	Sumber	22541	378	90505	3700.0	921.5	76.79	83	12	33	38
2	60	Tov	Sergelen	347121	400	378116	756.0	694.1	57.84	262	51	138	73
2	61	Tov	Ceel	107609	318	288227	2413.4	901.0	75.09	260	39	105	116
2	62	Tov	Erdene	131697	368	433102	2981.9	906.7	75.56	393	58	158	176
2	63	Tov	Altanbulag	480522	465	634365	933.1	706.8	58.90	448	86	232	131

2	64	Tov	Argalant	84408	324	212467	2247.2	892.8	74.40	190	29	78	83
2	65	Tov	Bornuur	62874	393	275259	4050.6	925.2	77.10	255	37	100	117
2	66	Tov	Zuunmod	0	215	178242	0.0						
2	67	Tov	Ugtaal	104428	538	270314	2140.5	826.9	68.91	224	36	99	88
2	68	Hovsgol	Ih-Uul	112096	584	561290	4520.8	902.9	75.24	507	76	205	226
2	69	Hovsgol	Rashaant	120077	499	439105	3240.9	886.2	73.85	389	59	160	170
2	70	Hovsgol	Tarialan	150794	526	439052	2473.6	849.6	70.80	373	59	160	153
2	71	Hovsgol	Tosoncengel	162276	448	567557	3124.4	893.3	74.44	507	77	207	223
2	72	Hovsgol	Erdenebulgan	147	619	201276		999.6	83.30	201	27	73	101
2	73	Hovsgol	Moron	8065	383	406499	50084.7	993.7	82.81	404	55	148	201
2	74	Hovsgol	Tunel	229622	290	443509	1689.7	874.8	72.90	388	60	162	166
2	75	Hentii	Binder	389686	462	450261	770.1	666.5	55.54	300	61	164	75
2	76	Hentii	Dadal	162883	616	123477	513.4	677.3	56.44	84	17	45	22
2	77	Hentii	Norovlin	390618	569	284800	474.5	650.8	54.24	185	38	104	43
2	78	Hentii	Omnodelger	506844	420	960163	1544.4	815.2	67.94	783	130	350	303
2	79	Hentii	Cenhermandal	186798	468	427824	1900.4	829.8	69.15	355	58	156	141

2	80	Hentii	Batshireet	126109	539	176730	952.0	679.3	56.61	120	24	65	32
2	81	Hentii	Bayan-Adraga	253860	336	264180	760.3	730.6	60.88	193	36	96	61
3	1	Bulgan	Bayannuur	76091	153	253966	3214.3	963.0	80.25	245	34	93	118
3	2	Arhangai	Ogiinuur	158768	107	571894	3515.7	976.0	81.33	558	77	209	272
3	3	Arhangai	Olziit	161702	323	557675	3188.4	924.5	77.04	516	75	204	237
3	4	Arhangai	Hashaat	251003	155	629701	2383.6	950.1	79.18	598	85	230	283
3	5	Bayanhongor	Bayan-Ovoo	321726	127	445529	1282.7	926.3	77.19	413	60	163	190
3	6	Bayanhongor	Bombogor	292377	94	518022	1695.8	957.1	79.76	496	70	189	237
3	7	Bayanhongor	Zag	251710	122	292029	1061.5	915.0	76.25	267	39	107	121
3	8	Bayanhongor	Olziit	382388	105	531297	1304.8	939.1	78.26	499	72	194	233
3	9	Bayanhongor	Huereemaral	424420	201	364577	696.8	811.2	67.60	296	49	133	113
3	10	Bayanhongor	Bayanbulag	315700	172	211789	532.5	793.7	66.14	168	29	77	62
3	11	Bayanhongor	Bayanhongor	4783	67	372123	77755.0	999.3	83.28	372	50	136	186
3	12	Bayanhongor	Jargalant	402765	249	334596	629.5	757.8	63.15	254	45	122	86
3	13	Bulgan	Gurvanbulag	213971	225	669908	2949.5	942.1	78.51	631	90	245	296
3	14	Bulgan	Dashinchilen	206097	167	514210	2360.0	945.9	78.82	486	69	188	229

3	15	Bulgan	Rashaant	72443	184	392666	5271.8	972.6	81.05	382	53	143	186
3	16	Gov'suember	Bayantal	83998	225	119169	1237.3	872.1	72.68	104	16	43	44
3	17	Gov'suember	Suember	300462	167	561681	1734.7	928.0	77.33	521	76	205	240
3	18	Gov'suember	Shiveegov'	81844	184	78701	813.2	845.7	70.47	67	11	29	27
3	19	Dornogov'	Ihhet	409445	156	59305	126.2	871.3	72.61	52	8	22	22
3	20	Dornogov'	Dalanjargalan	370875	141	287071	660.6	853.5	71.12	245	39	105	101
3	21	Dornod	Bulgan	672244	752	271521	606.1	1,500.5	125.04	407	37	99	272
3	22	Dornod	Gurvanzagal	388566	903	270494	728.2	1,046.1	87.18	283	37	99	148
3	23	Dornod	Matad	1943453	672	355497	542.1	2,963.7	246.98	1054	48	130	876
3	24	Dornod	Sergelen	241130	821	343875	763.7	535.5	44.62	184	46	126	12
3	25	Dornod	Halhgal	828837	849	180148	684.9	3,150.9	262.58	568	24	66	478
3	26	Dornod	Holonbuir	241511	960	263921	773.8	708.1	59.01	187	36	96	55
3	27	Dornod	Cagaan-Ovoo	353219	769	387846	620.0	564.6	47.05	219	52	142	25
3	28	Dornod	Choibalsan	687746	881	281090	710.7	1,738.8	144.90	489	38	103	348
3	29	Dornod	Bayantuemen	651291	549	354244	443.1	814.6	67.88	289	48	129	111
3	30	Dornod	Herlen	0	1171	419774	0.0						

3	31	Dornod	Chuluunhoroot	401829	831	175707	670.0	1,532.3	127.69	269	24	64	181
3	32	Dundgov'	Delgercogt	247721	246	282418	941.7	826.0	68.83	233	38	103	92
3	33	Dundgov'	Deren	360539	165	390976	951.5	877.4	73.12	343	53	143	148
3	34	Dundgov'	Erdenedalai	728483	235	865672	998.8	840.5	70.04	728	117	316	295
3	35	Dundgov'	Adaacag	326930	189	470051	1285.2	893.9	74.49	420	63	172	185
3	36	Dundgov'	Gov'-Ugtaal	252958	239	295129	974.2	835.0	69.58	246	40	108	99
3	37	Dundgov'	Mandalgov'	331731	174	624924	1743.2	925.4	77.11	578	84	228	266
3	38	Dundgov'	Cagaandelger	338549	269	226776	452.9	676.1	56.34	153	31	83	40
3	39	Ovorhangai	Bayan-Ondor	310217	247	730810	2156.3	915.3	76.28	669	99	267	304
3	40	Ovorhangai	Burd	210625	365	680274	2935.6	908.9	75.74	618	92	248	278
3	41	Ovorhangai	Ysonzuil	214358	199	442301	1903.1	922.3	76.86	408	60	161	187
3	42	Ovorhangai	Nariin teel	264498	155	472121	1660.3	930.1	77.51	439	64	172	203
3	43	Ovorhangai	Olziit	174981	162	454647	2467.7	949.7	79.14	432	61	166	204
3	44	Ovorhangai	Hairhandulaan	408603	189	592578	1297.9	895.0	74.58	530	80	216	234
3	45	Ovorhangai	Taragt	307083	153	475133	1424.1	920.4	76.70	437	64	173	200
3	46	Suhbaatar	Moenhhaan	715560	685	818236	591.3	517.1	43.09	423	110	299	14

3	47	Suhbaatar	Naran	189230	488	243786	894.6	694.4	57.87	169	33	89	47
3	48	Suhbaatar	Ongon	542558	458	495440	544.0	595.7	49.64	295	67	181	47
3	49	Suhbaatar	Suhbaatar	1239659	782	513459	630.7						
3	50	Suhbaatar	Tumencogt	178276	824	276481	886.1	571.4	47.61	158	37	101	20
3	51	Suhbaatar	Uulbayan	490220	330	468453	689.6	721.6	60.13	338	63	171	104
3	52	Suhbaatar	Halzan	373715	412	304335	482.3	592.2	49.35	180	41	111	28
3	53	Suhbaatar	Erdenecegagan	1294013	544	700563	438.6	810.1	67.51	568	95	256	217
3	54	Suhbaatar	Asgat	703526	676	324402	545.3	1,182.6	98.55	384	44	118	221
3	55	Suhbaatar	Baruun-Urt	0	489	821831	0.0						
3	56	Suhbaatar	Dar'ganga	318490	418	428940	1009.4	749.5	62.46	321	58	157	107
3	57	Hentii	Bayanmonh	244183	471	349065	1050.1	734.6	61.21	256	47	127	82
3	58	Hentii	Bayan-Ovoo	220172	717	345390	990.5	631.4	52.61	218	47	126	45
3	59	Hentii	Bayanhutag	550882	528	752886	941.0	688.5	57.38	518	102	275	142
3	60	Hentii	Bor-Ondor	0	0	144908	0.0						
3	61	Hentii	Galshar	648093	301	600812	684.2	738.0	61.50	443	81	219	143
3	62	Hentii	Darhan	399835	529	440659	675.7	613.1	51.09	270	59	161	50
3	63	Hentii	Delgerhaan	191211	449	1270989	6284.6	945.5	78.79	1202	172	464	566

3	64	Hentii	Jargalthaan	242573	443	425690	1397.7	796.5	66.37	339	57	155	126
3	65	Hentii	Batnorov	475245	473	758879	1215.2	761.0	63.42	578	102	277	198
3	66	Hentii	OElziit	197596	657	373646	1361.1	719.8	59.98	269	50	136	82
3	67	Hentii	OEndoerhaan	324598	607	0	0.0						
3	68	Tov	Bayan	266585	317	336640	1006.9	797.4	66.45	268	45	123	100
3	69	Tov	Bayanjargalan	233046	352	421893	1526.3	843.1	70.26	356	57	154	145
3	70	Tov	Bayan-Onjuul	470897	276	681869	1225.5	846.3	70.53	577	92	249	236
3	71	Tov	Bayanhangai	54135	211	181515	3182.8	949.2	79.10	172	25	66	82
3	72	Tov	Bayancagaan	641808	279	521109	586.8	722.7	60.23	377	70	190	116
3	73	Tov	Bueren	372001	419	659054	1434.0	809.4	67.45	533	89	241	204
3	74	Tov	Delgerhaan	208770	265	346363	1445.5	871.3	72.61	302	47	126	129
3	75	Tov	Lun	232573	253	499781	1945.3	905.2	75.44	452	67	182	203
3	76	Tov	Ondorshireet	253974	324	494137	1684.1	865.6	72.13	428	67	180	181
3	77	Tov	Erdenesant	251384	395	839383	3020.8	904.7	75.39	759	113	306	340
3	78	Tov	Arhust	54482	520	132137	2006.2	827.2	68.93	109	18	48	43
4	1	Bayanhongor	Bayanlig	690332	63	458663	597.8	899.8	74.98	413	62	167	183

4	2	Bayanhongor	Bayan-Ondor	610775	47	363324	544.9	916.0	76.33	333	49	133	151
4	3	Bayanhongor	Bayancagaan	538217	91	494409	821.7	894.5	74.54	442	67	180	195
4	4	Bayanhongor	Bogd	383356	116	487928	1149.0	902.8	75.23	440	66	178	197
4	5	Bayanhongor	Buucagaan	537253	139	591727	953.7	865.9	72.16	512	80	216	217
4	6	Bayanhongor	Jinst	522884	83	415090	705.3	888.5	74.04	369	56	152	161
4	7	Bayanhongor	Shinejinst	990491	57	371715	314.1	837.0	69.75	311	50	136	125
4	8	Bayanhongor	Baacagaan	715555	55	717016	943.5	941.5	78.46	675	97	262	317
4	9	Bayanhongor	Bayangov'	424512	113	422560	875.0	879.0	73.25	371	57	154	160
4	10	Gov'-Altai	Hohmor't	467584	94	466302	897.0	899.5	74.96	419	63	170	186
4	11	Dornogov'	Delgereh	478568	148	345063	563.4	781.4	65.12	270	47	126	97
4	12	Dornogov'	Zamyn-Uud	14790	59	59305	3947.0	984.3	82.03	58	8	22	29
4	13	Dornogov'	Mandah	1216671	46	278260	180.1	787.6	65.64	219	38	102	80
4	14	Dornogov'	Orgon	837859	81	270811	237.3	734.1	61.18	199	37	99	63
4	15	Dornogov'	Saihandulaan	940917	68	227930	170.1	702.2	58.52	160	31	83	46
4	16	Dornogov'	Ulaanbadrah	1035732	59	271718	199.8	761.7	63.47	207	37	99	71
4	17	Dornogov'	Hatanbulag	904910	33	433689	444.5	927.4	77.29	402	59	158	185

4	18	Dornogov'	Hovsgol	754038	39	230037	263.5	863.8	71.98	199	31	84	84
4	19	Dornogov'	Airag	698776	115	236804	216.4	638.6	53.21	151	32	86	33
4	20	Dornogov'	Altanshiree	703951	76	217455	227.7	737.2	61.44	160	29	79	52
4	21	Dornogov'	Sainshand	121447	54	198688	1578.3	964.7	80.39	192	27	73	92
4	22	Dornogov'	Erdene	746684	88	265223	261.8	737.0	61.42	195	36	97	63
4	23	Dundgov'	Gurvansaihan	514805	68	370517	647.9	900.2	75.02	334	50	135	148
4	24	Dundgov'	Delgerhangai	617693	138	286810	318.0	684.8	57.07	196	39	105	53
4	25	Dundgov'	Luus	313059	135	282545	759.1	841.1	70.09	238	38	103	96
4	26	Dundgov'	Olziit	1288877	51	427652	277.5	836.3	69.69	358	58	156	144
4	27	Dundgov'	Ondorshil	482462	172	258067	351.9	657.9	54.82	170	35	94	41
4	28	Dundgov'	Saihan-Ovoo	400683	164	292221	554.7	760.6	63.39	222	39	107	76
4	29	Dundgov'	Huld	602980	161	408929	506.7	747.1	62.26	306	55	149	101
4	30	Dundgov'	Bayanjargalan	307073	96	181405	488.2	826.4	68.87	150	24	66	59
4	31	Zavhan	Dorvoljin	702996	150	237083	177.3	525.9	43.82	125	32	87	6
4	32	Zavhan	Urgamal	345967	253	237378	417.3	608.2	50.68	144	32	87	26
4	33	Ovorhangai	Bogd	960421	77	800095	751.1	901.6	75.14	721	108	292	321

4	34	Ovorhangai	Guchin-Uс	463607	85	400536	773.8	895.6	74.63	359	54	146	158
4	35	Ovorhangai	Sant	254286	97	486715	1811.4	946.4	78.86	461	66	178	217
4	36	Ovorhangai	Toegroeg	531070	329	338148	349.9	549.6	45.80	186	46	123	17
4	37	Ovorhangai	Baruun bayan-Ulaan	387219	86	393300	924.7	910.4	75.87	358	53	144	161
4	38	Ovorhangai	Bayangol	351202	142	635157	1657.6	916.5	76.38	582	86	232	265
4	39	Omnogov'	Gurvantes	1411408	50	380051	215.8	801.6	66.80	305	51	139	115
4	40	Omnogov'	Mandal-Ovoo	578965	45	326010	515.1	914.7	76.23	298	44	119	135
4	41	Omnogov'	Manlai	1017193	93	343535	239.1	707.9	58.99	243	46	125	71
4	42	Omnogov'	Noyon	931043	47	246703	214.7	810.2	67.52	200	33	90	77
4	43	Omnogov'	Nomgon	1020161	88	539298	435.5	823.8	68.65	444	73	197	175
4	44	Omnogov'	Sevrei	138385	41	328400	2329.6	981.7	81.81	322	44	120	158
4	45	Omnogov'	Hanbogd	1104628	41	345096	268.6	859.8	71.65	297	47	126	124
4	46	Omnogov'	Hanhongor	815625	96	407954	398.3	796.3	66.36	325	55	149	121
4	47	Omnogov'	Hurmen	1054637	80	305193	204.6	707.0	58.92	216	41	111	63
4	48	Omnogov'	Cogtcecii	684951	52	217545	262.2	825.6	68.80	180	29	79	71
4	49	Omnogov'	Bayandalai	691590	86	372052	446.5	829.9	69.16	309	50	136	123

4	50	Omnogov'	Bayan-Ovoo	518239	56	261230	444.8	882.4	73.53	231	35	95	100
4	51	Omnogov'	Bulgan	489170	81	322188	572.7	869.5	72.45	280	43	118	119
4	52	Omnogov'	Dalanzadgad	39072	136	189085	4695.1	970.2	80.85	183	26	69	89
4	53	Omnogov'	Cogt-Ovoo	577219	77	209260	280.3	773.3	64.44	162	28	76	57
4	54	Suhbaatar	Tovshinshiree	431819	319	534889	899.2	725.9	60.49	388	72	195	121
4	55	Suhbaatar	Bayandelger	726382	317	662473	575.1	630.6	52.55	418	89	242	86
4	56	Uvs	Zavhan	275102	61	220147	735.7	919.3	76.61	202	30	80	92
4	57	Uvs	Zuungov'	188329	176	221301	987.7	840.5	70.04	186	30	81	75
4	58	Uvs	Naranbulag	505725	92	366598	627.1	865.0	72.09	317	49	134	134
4	59	Uvs	Olgii	229978	66	207200	831.1	922.5	76.87	191	28	76	88
4	60	Uvs	Omnogov'	272166	137	346913	1128.5	885.3	73.78	307	47	127	134
5	1	Gov'-Altai	Bugat	728258	57	280125	324.3	843.1	70.26	236	38	102	96
5	2	Gov'-Altai	Taishir	380691	136	308565	665.6	821.2	68.43	253	42	113	99
5	3	Gov'-Altai	Darvi	302607	226	369428	980.3	803.0	66.91	297	50	135	112
5	4	Gov'-Altai	Delger	655604	87	484060	645.4	874.1	72.85	423	65	177	181
5	5	Gov'-Altai	Jargalant	320735	118	404612	1136.1	900.5	75.05	364	55	148	162

5	6	Gov'-Altai	Tonhil	516026	65	221443	359.8	838.5	69.87	186	30	81	75
5	7	Gov'-Altai	Togrog	291578	158	432600	1316.0	887.0	73.91	384	58	158	167
5	8	Gov'-Altai	Haliun	277891	182	303855	899.7	822.8	68.57	250	41	111	98
5	9	Gov'-Altai	Ceel	513230	116	525237	899.8	879.2	73.27	462	71	192	199
5	10	Gov'-Altai	Chandman'	460178	138	382767	684.8	823.3	68.61	315	52	140	124
5	11	Gov'-Altai	Sarga	488753	160	367851	582.9	774.5	64.54	285	50	134	101
5	12	Gov'-Altai	Erdene	406544	83	335192	736.2	893.0	74.41	299	45	122	132
5	13	Gov'-Altai	Ajbogd	865835	140	214392	149.3	602.8	50.23	129	29	78	22
5	14	Gov'-Altai	Bayan-Uul	495488	196	460043	719.7	775.2	64.60	357	62	168	127
5	15	Gov'-Altai	Biger	351109	84	349090	905.0	910.2	75.85	318	47	127	143
5	16	Gov'-Altai	Altai	208635	103	478198	2182.6	952.2	79.35	455	65	175	216
5	17	Gov'-Altai	Cogt	603786	52	325824	483.8	896.6	74.72	292	44	119	129
5	18	Zavhan	Zavhanmandal	291533	202	255740	662.6	755.4	62.95	193	35	93	65
5	19	Zavhan	Santmargac	230100	221	189343	588.2	714.8	59.57	135	26	69	41
5	20	Zavhan	Cagaanhairhan	253230	323	175408	349.4	504.4	42.03	88	24	64	1
5	21	Zavhan	Cagaanchuluut	252142	281	252115	700.7	700.8	58.40	177	34	92	51

5	22	Zavhan	Shiluustei	266624	178	333133	1059.6	848.1	70.67	283	45	122	116
5	23	Zavhan	Erdenehairhan	408889	251	308706	488.4	646.9	53.91	200	42	113	45
5	24	Zavhan	Aldarhaan	563460	268	521077	639.5	691.5	57.62	360	70	190	100
5	25	Uvs	Zueuenhangai	209357	147	282543	1193.7	884.5	73.71	250	38	103	109
5	26	Uvs	Malchin	354657	147	248945	545.7	777.4	64.79	194	34	91	69
5	27	Uvs	Ondorhangai	311239	171	354035	955.5	840.0	70.00	297	48	129	120
5	28	Uvs	Sagil	255421	74	272796	989.1	926.1	77.18	253	37	100	116
5	29	Uvs	Turgen	163136	43	220690	1307.2	966.3	80.52	213	30	81	103
5	30	Uvs	Tes	151231	244	786534	4941.3	950.1	79.17	747	106	287	354
5	31	Uvs	Hovd	260081	125	280027	943.8	876.6	73.05	245	38	102	105
5	32	Uvs	Hyargas	291890	145	295898	859.9	848.2	70.69	251	40	108	103
5	33	Uvs	Cagaanhairhan	329264	77	278478	763.4	902.7	75.22	251	38	102	112
5	34	Uvs	Baruunturuun	38175	175	151008	3769.0	952.8	79.40	144	20	55	68
5	35	Uvs	Boehmoeroen	310492	85	219988	618.5	873.0	72.75	192	30	80	82
5	36	Uvs	Davst	162435	105	128769	680.8	858.7	71.56	111	17	47	46
5	37	Uvs	Tarialan	224063	113	223031	875.6	879.6	73.30	196	30	81	85

5	38	Uvs	Ulaangom	183811	59	343401	1805.9	966.7	80.55	332	46	125	160
5	39	Hovd	Darvi	492837	177	435459	695.3	786.9	65.57	343	59	159	125
5	40	Hovd	Dorgon	373423	63	272359	661.9	907.5	75.63	247	37	99	111
5	41	Hovd	Zereg	247327	181	370876	1306.6	871.3	72.61	323	50	135	138
5	42	Hovd	Manhan	358299	196	560349	1355.9	867.0	72.25	486	76	205	206
5	43	Hovd	Myangad	309195	151	492775	1433.3	899.3	74.95	443	67	180	197
5	44	Hovd	Uyench	300148	91	273643	815.1	894.1	74.51	245	37	100	108
5	45	Hovd	Chandman'	525739	108	530770	894.9	886.4	73.87	470	72	194	205
5	46	Hovd	Erdenebueren	160990	130	410958	2414.9	946.0	78.83	389	55	150	183
5	47	Hovd	Altai	830037	77	308117	289.8	780.6	65.05	241	42	112	86
5	48	Hovd	Bulgan	269736	173	523125	1755.2	905.0	75.42	473	71	191	212
5	49	Hovd	Buyant	187626	163	423858	2085.7	923.3	76.94	391	57	155	179
5	50	Hovd	Jargalant	0	40	244850	0.0						
5	51	Hovd	Hovd	231642	122	368113	1459.6	918.5	76.54	338	50	134	154

Zone
code 1

- 1 High Mountain
- 2 Forest Steppe
- 3 Steppe
- 4 Gobi

Data are missing for mostly *aimag* center *soums* which have no or very little pastureland

5 Depression of Great Lakes

Appendix 2 Records of consultation workshops

1. MOFALI Workshop 1

The consultation workshop titled “Establishing grazing fees as a sustainable green development mechanism for livestock husbandry” was held in the meeting hall of the MOFALI on January 4, 2018, starting at 15:00 and ending at 16:45.

The following individuals participated in the workshop:

1. Mr. Choi-Ish – Head, Department for the Livestock Policy Implementation Coordination
2. Mr. Enkh-Amar – Head, Department for Strategic Policy and Planning
3. Mrs. Battsetseg –Head, Legal Division
4. Mrs. Suvd – Lead Specialist, Department for Strategic Policy and Planning
5. Mr.Amgalanbaatar – Head, the Inter-*aimag* Otor Pasture Administration
6. Mr. Byambadorj –Lead Specialist, Department for the Livestock Policy Implementation Coordination
7. Mr. Munkhnasan- Specialist, Department for the Livestock Policy Implementation Coordination
8. Mr. Munkhgerel – Specialist, Department for the Livestock Policy Implementation Coordination
9. Ms. Zolzaya – Specialist, Inter-*aimag* Otor Pasture Administration
10. Mr. Enkh-Amgalan – Director, Center for Policy Research (CPR)
11. Mr. Erdenebaatar –Expert, CPR

A total of 11 individuals were present at the workshop.

Discussion:

A.Enkh-Amgalan, Director of the Center for Policy Research, introduced the workshop content titled “Establishing grazing fees as a sustainable green development mechanism for livestock husbandry” which is implemented under the scope of the “Biodiversity Funding Initiative” program of UNDP. The content was presented at this workshop to receive feedback from representatives of the MOFALI, a state organization overseeing pasture related issues.

Mr.Amgalanbaatar, Enkh-Amar, L.Choi-Ish, Munkhnasan and G.Suvd asked questions to which the presenter responded.

Proposals issued by participants:

Mr. Amgalanbaatar: There can be numerous requirements for establishing the grazing fee. Although one could argue that the more the requirements the better the coherence among the requirements may be, it is possible to set fewer and simpler requirements this time. If the *soum* pasture is to be distributed among herder organizations, it may be a good idea to increase the pasture area. However, this cannot be done among herder households; thus, herder groups are necessary.

Mr. Munkhnasan: It is wrong to cut the area size of pasture. Instead, it is better to distribute pasture among *baghs* and cause fewer potential disputes.

Mr. Enkh-Amar: I do not have any objections to the introduction of grazing fees. Since we may need to adjust the base rate of grazing fees depending on local pasture characteristics, it is important to carefully consider *soum* pasture quality conditions before finalizing any changes to the base rate. Again, I am in full support of the proposal.

Mrs. Suvd: As “The Animal Genetic Resources Protection” law passed shortly before New Year obligates all herders, livestock owners & economic entities to adapt their herd size and animal type to pasture carrying capacity, it is essential that the ministry prioritizes the implementation of this task. Although we are addressing this issue in a timely manner, herders face the risk of not fulfilling their legal obligations if we do not proceed quickly with the task at hand. Generally speaking, it is better to initiate a new legislation since the outcome of the “Pasture Protection” law is unpredictable at best and even if the law is passed, it is not possible to establish grazing fees as we currently aim to do so.

Mr. Choi-Ish delivered the closing statement to conclude the workshop. He emphasized that the support of grazing fees is not only limited to the Ministry and policy researchers. For instance, throughout the recent animal census meetings, many herders across many locations expressed their strong support for grazing fees and deemed it necessary that the government take decisive action to initiate its implementation. The following remarks were made regarding the points discussed at the workshop:

- It is of utmost importance to discuss all factors affecting the establishment of grazing fees as well as the distribution and budget spending of grazing fee income before reaching a consensus.

- As Mongolian herders value migration, including seasonal migration, as an important part of their cultural heritage, it is the right approach to consider this cultural aspect in the decision-making process.

- The establishment of herder groups and the requirements of membership must be taken into account on both a communal & individual basis. It is important to avoid giving the wrong impression that group membership forces herders to settle and crowd together. As mentioned before, herder migration must remain a common practice.

- Since there was no objection to the establishment of grazing fees from any of the workshop participants, MOFALI expects the issue to advance to the next stage of discussions.

- It is better to assume that the proposal of grazing fees was initiated by MOFALI and presented by the government.

- It is the correct approach to discuss how to integrate the matter into The “Pasture Protection” law which is still in the legislative drafting process.

- The legal phrasing of the grazing fee must be formulated accurately to integrate the content produced by this workshop. If necessary, we may arrange another workshop session with MOFALI.

This workshop concludes that the workshop participants support the proposal titled “Establishing grazing fees as a sustainable green development mechanism for livestock husbandry”

2. MOFALI Meeting 2

The meeting was held on 11 January 2018 at 15.30 at the room of Mr. Choi-Ish, Head, Department for the Livestock Policy Implementation Coordination and attended by Mr. Amgalanbaatar, Head, the Inter-*aimag* Otor Pasture Administration, Mr. Byambadorj, Lead Specialist, Department for the Livestock Policy Implementation Coordination, Ms. Zolzaya, Specialist, Inter-*aimag* Otor Pasture Administration and Mr. Enkh-Amgalan from CPR. The meeting objective was to discuss the legal solutions proposed by CPR to introduce grazing fees. Mr. Enkh-Amgalan has presented on the CPR proposal on legal solutions and others commented on it. Mr. Choi-Ish said that the proposed solutions are valuable and the MOFSLI consider them as one of potential ways to promote the grazing fee system. Mr. Amgalanbaatar commented that he has no objections against proposed solutions, however, other alternatives need to be discussed as well.

3. Workshop for the Ministry of Environment and Tourism Development (METD)

The proposed grazing fee methodology and results have been discussed at the workshop organized on 10 January 2018 by the BIOFIN project for its steering committee members involving Mr. Batjargal, head of the Public Administration Department of METD, other staff members of METD as well as representatives from other ministries, agencies and UNDP staff members headed by Ms. Daniela Gasparikova, DRR UNDP.

The presentation on the grazing fee methodology and results has been made by Mr. Enkh-Amgalan, followed by a few questions and comments. In general, the audience was supportive of the proposed methodology and key results.

4. Workshop among civil society organizations, researchers and donor projects

The meeting was held in the meeting room of the Center for Policy Research on January 11, 2018.

The presentation, on grazing fee methodology and key results, has been made Mr. Enkh-Amgalan followed by question/answer sessions and discussions.

The following proposals were delivered by the participants:

Mr. Munkh-Ireedui, Economic Research Institute (ERI) of the National University of Mongolia– It is advisable to further explain the methodology used to determine the income of herder households and the factors affecting the livelihood of herders. Some herders overstate the number of livestock they own in order to access bank loans. The income of herder households are higher than the income we determined in our study.

Mrs. Bayarmaa, SDC Green Gold & Animal health Project –The Livestock Risk Management Fund fees are paid very well in the first year of the project implementation. However, we have noticed that the local administration tends to fall back on its duties. Hence, it is recommended to improve the implementation of the Livestock Risk Management Fund rules.

Mrs. Urantulkhur, Human rights development center, NGO– The proposals have been based on precise & specific research. Thus, the implementation of this work should continue.

Mrs. Tserennadmid, Leopard Protection Fund– We specialize in cashmere projects. Most of the income of herders is attributed to cashmere. Today's presentation seems to overstate the

income from meat. We propose that you consider the interest of herders to raise goats when adapting to the optimal pasture carrying capacity.

Mr.Gankhuyag, TNC – I support the proposals that have been presented. In particular, I view it as the correct approach to implement the task at hand by utilizing the collaborative natural resource management partnership. As such, the legal environment should be reformed for implementation to take place.

Name of list of participants, METD workshop

No	Names	Title
I. Project Board Members:		
1	Batjargal Kh.	State Secretary, MET and Chairman of Project Board
2	Daniela Gasparikova	Deputy Resident Representative, UNDP CO & Chairman of Project Board
3	Bulgan T.	Director of Department of Green Development Policy and Planning, MET
4	Nyamdavaa G.	Director, Department of Environment and Natural Resources management, MET
5	Bayarkhuu S.	Senior officer, Department of Environment and Natural Resources management, MET
6	Turbadrakh T.	Officer, Department of Green Development Policy and Planning, MET
7	Bayarbat D.	Senior officer, Department of Environment and Natural Resources management, MET
8	Enkhmunkh G.	Officer, Department of Protected Areas Management
9	Tuvshinjargal G.	Officer, Department of Climate Change and International Cooperation, MET
10	Ganbat J.	Director, Department of Fiscal Policy and Planning, Ministry of Finance
11	Enkh-Amar M.	Director, Department of Policy Planning, MFALI
12	Batsaikhan J.	Deputy Director, Administration of Land Affairs, Geodesy and Cartography
13	Erdenebayar D.	Director, Sectoral Planning Department, National Development Agency
14	Sarandavaa D.	Deputy Director, Mongolian National Chamber of Commerce and Industries
Secretary to the Project Board:		
15	Ariuntuya D.	Director, Department of Climate Change and International Cooperation MET, BIOFIN national focal point
II. Observers:		
<i>UNDP, Country office, Mongolia</i>		
16	Khishigjargal Kh.	Program officer, UNDP CO
17	Buyandelger U.	Monitoring and Evaluation officer, UNDP CO
<i>Project Implementing Unit</i>		
18	Javkhlan A.	NPC, BIOFIN & ABS Projects
19	Chimed-Ochir B.	Lead expert, BIOFIN
20	Ganchimeg O.	AFO, BIOFIN & ABS Projects
21	Jargalsaikhan P.	Communication specialist, BIOFIN
22	Naidalaa B.	Sustainable finance expert, National consultant
23	Enkh-Amgalan A.	Center for Policy Research
24	Khandsuren B.	Capital Marketing Consulting
25	Bazargur Z.	Translator

Mrs.Enkhee, WWF– Households with many livestock should pay more while households with fewer livestock should pay less for the grazing fee (progressive fee).

Mrs.Oyuntulkuur, UNDP Project Coordinator– Support views by Mrs. Enkhee. We must work to integrate the Risk Fund rules and the Livestock Risk Management Fund rules into one. .

Mr. Ykhanbai, Jasil Association, NGO– I agree with the grazing fee methodology and the findings that have been presented. It is correct that grazing fees should be valued on the basis of the environmental impact livestock exert.

Mr. Chimed-Ochir, BIOFIN project advisor– We would like to give some information about the BIOFIN project and some clarification regarding the figures in the presentation. For instance, the herd size of households, the possibility of differentiating between herder households and households with livestock, and the legal environment in which the grazing fee income is allocated either to the *aimag* or the *soum* budget are all important points to consider. Furthermore, as we acknowledge the benefit of cooperation, preferably a NGO organization should act as a lead in lobbying the draft legislation. For example, the Mongolian Association for Pasture User groups comes to mind. On the other hand, UNDP has limitations in the lobbying process.

Mr. Gankhuyag, Executive Director, Mongolian Association for Pasture User Groups: I support the aforementioned ideas. We will not insist to use a different terminology for “pasture user groups”. As of now, we are using the term “herder groups” in the draft legislation. We are willing to integrate the 2 terminologies if needed.

Mr. Enkh-Amgalan responded to issues raised by the workshop participants. As form income of herder households it is based on the herd turnover model and 2016 livestock number and prices. The detailed methodology for estimating herders income can be presented separately for interested parties including economists. There was suggestion to impose higher grazing fees on herders with many livestock. This is about introducing progressive grazing fee. The idea seems to be attractive at first sight, however, there are strong arguments against it. **First**, grazing is payment for the use of natural resources, but not income tax, sheep of richer herders ears the same amount of pasture forage as the sheep of poorer herders, so there is no basis to impose higher fee on animals of richer herders, **second**, grazing fee is increased if herders overgraze pastures, meaning increasing herd size beyond pasture carrying capacities is already taken into account, which some argue that big herds are already taken into account and progressive grazing fee is double counting, **third**, because of newly introduced taxes since 2018 the current political situation is to avoid any tax increases, so increasing fees for richer herders might seem inappropriate in the current situation. Because of these considerations we recommend that the progressive grazing fee be rejected for the time being.

Mrs. Khishigjargal, UNDP

1. The grazing fee proposal has been successfully presented to the Minister of METD and we have received support. It is now important to focus on lobbying in order to create the necessary legal environment. We will reflect on the practical options discussed today; for instance, further assessing the possibility of charging a higher fee from herders with many livestock.
2. Launch rigorous promotion and advertising
3. Ensure the participation of donors and other institutions in the lobbying process
4. Coordinate the proposal with the draft Pastureland Protection Law working group’s activities
5. Instead of using many interchangeable terms like groups or pasture user groups, it is simpler to use the term “collaborative natural resource management partnership”.
6. Utilize social networks for the purpose of advertising

Name of list of participants, Workshop among civil society organizations, researchers and donor projects

No	Name	Organization	Position
1	Mr.Munkh-Ireedui	ERI of the National University of Mongolia	Researcher
2	Ms.Unurjargal	ERI of the National University of Mongolia	Research
3	Mr.Chimed-Ochir	BIOFIN project advisor	Specialist
4	Mr.Lkhagvasuren	Zulgen sor beef farm from Dornod <i>aimag</i>	Owner
5	Mrs.Urantulkhur	Human rights development center, NGO	Specialist
6	Mr.Gankhuyag	Mongolian Association for Pasture User Groups	Executive Director
7	Ms.Tserennadmid	Leopard Protection Fund	Specialist
8	Ms.Munkhchuluun	Leopard Protection Fund	Specialist
9	Ms.Enkhtuvshin	Leopard Protection Fund	Specialist
10	Mrs. Bayarmaa	SDC Green Gold & Animal Health Project	Specialist
11	Mr.Gankhuyag	TNC	Specialist
12	Mrs. Enkhee	WWF	Advisor
13	Ms.Khishigjargal	UNDP Co	Programme Analyst
14	Ms.Oyuntulkhur	UNDP	Project Coordinator
15	Ms. Onon	WCS	Staff
16	Mr. Ykhanbai	Jasil Association	Director
17	Mr. Enkh-Amgalan	Center for Policy Research	Director
18	Mr. Boldsukh	Center for Policy Research	Staff
19	Mr.Ulambayar	Center for Policy Research	Staff

5. Ministry of Finance

The workshop was organized on 19 January 2018 at the general meeting hall of the Ministry of Finance at 11.30-12.30. The attendants' list is shown below.

Mr. Enkh-Amgalan has introduced on the proposed grazing fee methodology and key results followed by questions/answers and discussions (presentation is attached in **Annex 1**).

The Ministry of Finance audience was very interested in the methodology, potential revenues collected and distributions schemes and expressed their support as long as a political decision is made by the Parliament.

Name of list of participants, Ministry of Finance

No	Name	Position
1.	O.Khuyagtsogt	Head, Budget Expenditure Division
2.	T.Zolboo	Specialist, Finance Policy and Planning Department
3.	R.Myagmarjaw	Specialist, Finance Policy and Planning Department

4.	B.Bilguun	Adviser, Finance Policy and Planning Department
5.	B.Amartuvshin	Specialist, Tax Management and Cooperation Department
6.	G.Enkhdalai	Specialist, Tax Revenue Department
7.	N.Urantsetseg	Specialist, Budget Expenditure Department
8.	E.Enkhbat	Specialist, Finance Policy and Planning Department
9.	P.Bat-Erdene	Specialist, Finance Policy and Planning Department
10.	O.Otgontsetseg	Specialist, Finance Policy and Planning Department
11.	A.Enkh-Amgalan	Director, CPR
12.	Ts.Volodya	Expert, CPR
13.	A.Boldsukh	Expert, CPR
14.	O.Ulambayar	Expert, CPR
15.	B.Erdenebaatar	Expert, CPR

Key comments from consultations organized in *aimags* and *soums*:

- LQSF is a good mechanism to leverage herders selling more animals to the market
- It would be good if *soums* have own slaughter units
- Cooperatives need to be strengthened to undertake its animal sales functions properly
- Introduce a mechanism to discourage herders keeping more pastures beyond their needs
- It is good to have independent source of financing risk pastureland management at *soums*
- Gazing fees need to be imposed on all animals regardless of type of ownership
- Simple language explanation materials need to be circulated to herders
- Mechanisms to apply in cases of emergencies need to be carefully considered
- The current level of around MNT 500 per sheep unit is a good estimate, however, poor herders may need some types of concessions
- Coefficients to convert sheep units may need to be different by ecological regions
- Pastureland use agreements have been piloted successfully in the past, so needs to be further promoted
- Make sure that revenues are used by *soums* rather than going to *aimag* or state budget
- It is good for herders to pay something to the local budget as they face difficulties in claiming any assistance from the local budget as they have not paid anything in the past
- Make sure that herders migrating to other *soums* because of emergency conditions are not charged higher fees
- Consider concessions in emergency cases such as outbreak of contagious diseases
- Consider concessions in cases of high pressures of wildlife on pastures

Name of list of participants, local governments and herders:

Orkhontuul *soum*, Selenge *aimag*

Name	Position
<i>Soum Khural, Governor's Office</i>	

1. L.Batbaatar	<i>Soum Governor</i>
2.S.Jamsran	<i>Secretary, Soum Khural</i>
3.P.Otgonbaatar	Vice Governor
4.P.Tsagaan	Head, AHBU
5.B.Oyunbold	Land Officer
6.Sh. Ankhbayar	Environmental Inspector
7.B.Batchimeg	Public Relations Officer
8.G.Munkhtuya	Ranger
9.D.Naranbaatar	Bag Governor
10.L.Nyamdorj	Bag Governor
11.Unurbayar	Head, Governor's Office
Herders	
1.Ts.Tserenchimed	<i>Shar-Us bagh</i>
2.T.Nyamdavaa	<i>Khongor-Ovoo bagh</i>
3.D.Nergui	<i>Khongor-Ovoo bagh</i>
4.J.Dugerjav	<i>Shar-Us bagh</i>
5.Ts.Nyamjav	<i>Shar-Us bagh</i>
6.Ts. Ganzorig	<i>Bayantsogt bagh</i>
7.B.Yanjmaa	<i>Bayantsogt bagh</i>
8.D.Ganbat	<i>Shar-Us bagh</i>
9.G.Osorjav	<i>Shar-Us bagh</i>
10.G.Batsukh	<i>Bayantsogt bagh</i>
11. E.Oyun	<i>Khongor-Ovoo bagh</i>

Tuv aimag

No	Name	Position
1	Kh.Tuvshinjargal	Division Head, <i>Aimag</i> Food & Agriculture
2	B.Nyamkhuu	Local Coordinator
3	B.Ganbaatar	Livestock Specialist
4	J.Rentsenbaatar	Specialist for animal contagious diseases
5	M.Tsogjavkhaa	Specialist, <i>Aimag</i> Land Agency
6	B.Zanabazar	Specialist, <i>Aimag</i> Environmental Office
7	Bo. Byambatsogt	Head, Strategic Policy and Planning Department, <i>Aimag</i> Governor's Office
8	M.Tuya	Livestock specialist
9	S.Saranmandal	Livestock specialist

Undurshireet soum, Tuv aimag

1	B.Otgontsetseg	<i>Secretary, Soum Khural</i>
2	R.Davaa-Ochir	Bag Governor
3	Ts.Sampilnorov	Bag Governor
4	A.Delgersuren	AHBU specialist
5	D.Lkahmsuren	Treasury head
6	B.Byambadorj	Environmental inspector
7	B.Sumyasugar	Land officer
8	Ts.Oyun	Head, <i>Soum</i> Pasture Users' Association

9	U.Densmaa	AHBU specialist
10	E.Tamjid	Herder, 3 rd <i>bagh</i>
11	B.Badamsuren	Herder, 2 nd <i>bagh</i>
12	A.Chimgee	Herder, 2 nd <i>bagh</i>
13	L.Oyuntsetseg	Herder, 2 nd <i>bagh</i>
14	I.Ganzorig	Herder, 1 st <i>bagh</i>
15	B.Nergui	Herder, 3 rd <i>bagh</i>
16	G.Chinbat	Herder, 1 st <i>bagh</i>
17	M.Burenzevseg	Herder, 4 th <i>bagh</i>
18	S.Narantsesteg	Herder, 1 st <i>bagh</i>

Dundgobi *aimag*

No	Name	Position
	T.Munkhbat	Head, Livestock Division, <i>Aimag</i> Food and Agriculture Agency
	J.Baatarbileg	Specialist, <i>Aimag</i> Food and Agriculture Agency
	B.Bolortuya	Specialist, <i>Aimag</i> Meteorology Office
	L.Togzolmaa	Luus <i>soum</i> Governor
	M.Bayanjargal	Luus <i>soum</i> AHBU specialist
	Sh.Oinbayar	Head, private veterinary service provider, Luus <i>soum</i>
	Sh.Enkhtuvshin	Herder, Luus <i>soum</i>
	Kh.Tuul	Herder, Luus <i>soum</i>
	N.Erdenetsesteg	Herder, Luus <i>soum</i>
	P.Otgonchimeg	Herder, Luus <i>soum</i>